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THE ROLE OF PROFESSIONAL DEVELOPMENT ON SECONDARY SPECIAL EDUCATORS SELF-EFFICACY REGARDING THE USE OF EVIDENCE-BASED TRANSITION PRACTICES

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A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University

by

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Abstract

THE ROLE OF PROFESSIONAL DEVELOPMENT ON SECONDARY SPECIAL EDUCATORS SELF-EFFICACY REGARDING THE USE OF EVIDENCE-BASED TRANSITION PRACTICES

By Lauren Puglia Bruno, Ph.D.

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The purpose of this study was to determine how transition specific professional development influenced secondary special educators' knowledge and perceived self-efficacy regarding the use of evidence-based transition practices. Past research has suggested that secondary special educators enter the profession with limited knowledge and skills to provide effective evidence-based transition practices to students with disabilities. Based on Bandura's Social Cognitive Theory, and Desimone's framework for effective professional development, this study identified how different variables related to professional development can influence teacher self-efficacy in terms of delivering evidence-based transition practices. Specifically, a correlational research design was used to investigate teacher self-efficacy to deliver evidence-based transition practices when (a) the amount of professional development (b) type of professional development, and (c)

location of the professional development are factors. Descriptive statistics, an analysis of variance (ANOVA), and a multiple linear regression analysis were performed. Results indicated the amount of professional development received had a significant effect on teachers perceived efficacy, compared to location, and type of professional development received. Further, results of teachers perceived effectiveness, changes made as a result of the professional development, and other factors related to professional development are reported. Limitations and implications for teacher professional development research, practice, and policy are discussed.

Chapter 1

Introduction

Transition planning and providing evidence-based transition services is critical in preparing students with disabilities to be successful and engaged adults. For many years, after students leave high school, they are expected to transition into college, employment, and/or independent living. Yet, it was not until the passage of the Individuals with Disabilities Education Act (IDEA) of 1997 that special education policy was mandated to provide services that focused on transition from secondary education to postsecondary schooling, independent living, or employment for students with disabilities. In the past, individuals with disabilities had poor transitional outcomes, such as being placed in adult day programs, working in sheltered workshops, or being institutionalized (Benz, Lindstrom, & Yovanoff, 2000; Wehman, 2001; Blackorby & Wagner, 1996; Wehmeyer & Palmer, 2003). Transition outcomes of students with disabilities have been linked to lower graduation rates, lower rates of employment, low rates of enrollment in post-secondary education, and low pay (Murray, Goldstein, Nourse, & Edgar, 2000; Wagner & Blackorby, 1996). In order to promote optimal transitional outcomes, national organizations have furthered the definitions and have advocated for greater transitions outcomes for individuals with disabilities. For example, the Division on Career Development and Transition (DCDT) defined transition as "a change in status from behaving primarily as a student to assuming emergent roles in the community" (2018, n.p.). Wehman (2006) defines transition as life changes, adjustments and cumulative experiences that occur in the lives of young adults as

they move from school environments to independent living and work environments. Based on current legislation and definitions of transitions, individuals with disabilities must have their individual needs and preferences met through the use of evidence-based practices to have positive transition outcomes. In order to meet individual's needs, teachers need to be prepared to use evidence-based practices for transition.

Evidence-based transition practices are critical in supporting students with disabilities in their futures careers and lives and teachers need to know how to effectively implement these practices (Browder & Cooper-Duffy, 2003;; Landmark, Ju, & Zhang, 2010; Test, Mazzotti, Mustian, Fowler, Kortering, & Kohler, 2009; Wehman, 2013). Yet, research has indicated that teachers lack the transition competencies to effectively provide these services (Benitez & Morningstar, 2009; Blanchett, 2001; Knott & Asselin, 1999;; Morningstar & Clark, 2003; Prater, Sileo, & Black, 2000; Sinclair, Christenson, & Thurlow, 2005), suggesting teachers are entering the field lacking the self-efficacy needed to provide evidence-based transition services to students with disabilities. To remedy this problem, researchers have used professional development to increase teachers' knowledge surrounding the use of evidence-based transition practices. Therefore, research needs to identify the ways in which teachers are increasing their self-efficacy to effectively provide evidence-based transition practices to students with disabilities.

Evidence-Based Practices for Transition

Teachers should have certain transition competencies in order to be effective at delivering evidence-based transition services to students with disabilities. These can include knowledge of transition services, transition education and service, skills to develop, organize, and implement transition strategies and collaboration (Morningstar & Clark, 2003). Therefore, secondary

education practices have been identified by the field of special education to prepare students with disabilities for post-school outcomes. Many of these practices were identified in a systematic literature review completed by Test et al., (2009). Thirty-two evidence-based practices were identified as having a strong, moderate, or potential effect on improving student's transition outcomes. Evidence-based practices identified through Test et al. literature review include inclusion in general education courses with regular education peers, involving students in individualized education program (IEP) meetings, teaching varying independent living skills and functional academic skills, leisure and community skills, and technology skills, teaching parents and families about transition, and providing community-based instruction. By utilizing the identified practices, teachers can improve transition outcomes for students with disabilities.

The Council for Exceptional Children provides guidance for transition in the Specialty Set: CEC Advanced Special Education Transition Specialist (CEC, 2013). The specialty set includes seven standard areas: assessment; curricular content knowledge; programs, services, and outcomes; research and inquiry; leadership and policy; professional and ethical practice; and collaboration. Assessment involves utilizing a variety of formal and informal transition assessments and procedures to identify student strengths, preferences, and interests critical to transition outcomes. Curricular content knowledge includes utilizing evidence-based instruction, curricular resources, and practices regarding transition to post-school settings. More specifically, teachers need instructional practices and related activities to embed transition content within general academic courses, offer activities that are related to transition planning in the school and community, and facilitate student-centered transition planning approaches. The third standard programs, services, and outcomes, focuses on providing in-school and community-based employment preparation, strategies for providing instruction in the community and connecting

functional and academic skills, and other employment related skills. To do this, teachers need to be prepared to develop annual goals to measure students' progress, align academic and functional goals, and evaluate their instructional practices to meet the needs of their students. Research and inquiry focus on developing transition practices, programs, and services that promote positive transition outcomes, and understanding the research on transition-based outcomes. The fifth standard, leadership and policy, focuses on understanding the transition laws and policies. Under professional and ethical practice, teachers need to understand their role as a secondary special educator, and the varying roles of other support services for transition (i.e. community personnel). Finally, collaboration states teachers need to utilize strategies to collaborate with various stakeholders including members of the IEP teams, students, community members, and families.

Standards and evidence-based practices provide special educators with the tools to be prepared to practice and deliver effective transition specific instructional practices that provide students with the academic and functional skills needed to succeed in employment, post-secondary education, independent living, community participation, and other transition areas. The use of evidence-based transition practices is critical in supporting students with disabilities in their future careers and lives; teachers need to know how to effectively implement these practices (Bandura, 2009; Blanchett, 2001; Sinclair, Christenson, & Thurlow, 2005). Yet, research has indicated that teachers' confidence surrounding the transition competencies are low (Benitez & Morningstar, 2009; Knott & Asselin, 1999; Prater, Sileo, & Black, 2000) and the use of transition competencies are lacking (Blanchett, 2001). Even after completing teacher preparation programs, teachers are still unprepared to meet the needs of their students (USDOE, 2016). It was identified that special education personnel preparation programs, rarely provide a

stand-alone course in transition (Anderson et al., 2003); , indicating a need to evaluate how teachers are increasing their knowledge and skills to use evidence-based practices to meet the mandated transition requirements their students need.

Policies Supporting Transition

Research has highlighted the importance of using evidence-based transition practices when preparing students with disabilities for post-school outcomes, whether it be college, employment, independent living, and/or community participation. However, transition planning focused on increasing students with disabilities post-school outcomes is mandated by law. Key statutes that address the provisions of transition services include the Individuals with Disabilities Education Act (IDEA, year?), the Rehabilitation Act of 1973 (Rehabilitation Act), and Title IV of the Workforce Innovation and Opportunity Act (WIOA). The following policies have placed an emphasis on transition planning to help students with disabilities obtain employment, pursue postsecondary education and training, and live more independently. The Office of Special Education and Rehabilitative Services (OSERS, 2017) describes the impact policies have on transition:

> The IDEA and the Rehabilitation Act make clear that transition services require a coordinated set of activities for a student with a disability within an outcome-oriented process. This process promotes movement from school to post-school activities, such as postsecondary education, and includes vocational training, and competitive integrated employment. Active student involvement, family engagement, and cooperative implementation of transition activities, as well as coordination and collaboration between the VR agency, the SEA, and the LEAs are essential to the creation of a process that

results in no undue delay or disruption in service delivery. The student's transition from school to post-school activities is a shared responsibility (p.v).

This section will provide an overview of the policies that mandate students receive instruction and supports to increase transition outcomes while also providing individuals with the disabilities equal opportunity to access schools, college, employment and independent living. Policies are organized in order of influence in the school to education setting. With policies mandating that students receive these services, teachers need to be prepared and know how to effectively provide research-based practices to students with disabilities.

Individuals with Disabilities Education Act (IDEA). Transition is defined by the IDEA as a coordinated set of activities for a child with a disability that is designed to be focused on improving the academic and functional achievement of the child with a disability (PL 108-446). Focus on achievement in these areas would facilitate the child's movement from school to post-secondary activities. Transition plans must be based on the individual child's needs, taking into account the child's strengths, preferences and interests. In order to allow for success in transition, the plan must include activities structured around instruction, related services, community experiences, the development of employment and other post-school adult living objectives. If appropriate and determined by the IEP team based on the acquisition of daily living skills and functional vocational evaluation, individuals can have goals related to independent living as well (PL 108-446, §602). The IDEA also ensures that schools are including transition plans in the students' IEPs including appropriate measurable post-secondary goals based upon age appropriate transition assessments related to training, education, employment, and where appropriate, independent living skills, as well as providing the child the transition services needed to assist the child in reaching those goals. The reauthorization of IDEA in 2004 placed an

emphasis on special education and related services meeting students' unique needs and preparing them for further education, employment and independent living (PL 108-446).

The Rehabilitation Act. Title V of the Rehabilitation Act of 1973, increased civil rights for people with disabilities, and prohibited discrimination in recruitment, hiring, promotions, training, pay, social activities, and other privileges of employment (PL 93-112). More specifically, employers are restricted to the questions they can ask about a candidate's disability before a job offer is made and must make reasonable accommodations for physical or mental limitations (Section 501, PL 93-112§ 790). Further, section 504 states that "no qualified individual with a disability in the United States shall be excluded from, denied the benefits of, or be subjected to discrimination under" any program or activity that either receives Federal financial assistance or is conducted by any Executive agency or the United States Postal Service.

The Perkins Act. Carl D. Perkins Vocational Education Act, an amendment to the Vocational Education Act, provides federal funding for vocational education and programs that focused on acquisition of job skills through learning vocational and technical education (PL 98-524). Another objective of Perkins includes making vocational education available for special populations including people with disabilities, disadvantaged people, single parents and homemakers, and incarcerated people (PL 98-524).

The Workforce Innovation Opportunity Act (WIOA). WIOA has improved access and opportunities for employment, education, and training and support services needed by individuals to succeed in the workforce (PL 113-128). WIOA has promotes coordination and collaboration across education and workforce development, and transportation.

Rationale

Legal mandates, which promote the use of evidence-based practices for teaching students with disabilities, provide a foundation for the knowledge and skills teachers need to possess in order to support their students. It is essential for secondary special educators to have the knowledge and skills to effectively provide evidence-based services to their students with disabilities. Therefore, with teachers entering the field with limited knowledge of transition competencies and evidence-based practices, it is critical to investigate the ways in which they are improving their use of evidence-based transition practices. By better understanding the professional development activities that teachers seek out or are provided, the amount of professional development received, and the areas in which the professional development is focused, researchers can better understand methods teachers are finding to provide students with disabilities transition specific instruction using evidence-based practices and how teachers perceive professional development activities affect their use of evidence-based practices.

Statement of Purpose

The goal of this study was to explore the relation between transition specific professional development and how it may impact secondary special educators' knowledge and self-efficacy surrounding the use evidence-based transition practices. This study identified the ways in which professional development is delivered, at what level (i.e. at the school or district level, professional organizations, etc.), and how teachers obtain the information. Furthermore, this study examined the perceived efficacy of the teachers and the extent to which they felt professional development increased their knowledge and skills to effectively provide evidence-based transition practices to students with disabilities and the extent to which change was made in their classrooms.

Research Questions

To address the purpose of this study the general research question was what types of professional development activities do secondary special educators access to improve their knowledge and skills around delivering evidence-based transition practices for students with disabilities? The following four specific research questions were addressed:

1. Is there a relationship between the level of perceived self-efficacy surrounding transition and the types of professional development training received?
2. Is there a difference in the level of perceived self-efficacy related to the use of evidence-based transition practices and the amount of professional development among secondary special education teachers?
3. Is there a difference in the level of perceived self-efficacy regarding the use of evidence-based transition practices based on where teachers receive professional development (i.e. professional organizations, state level, district level, school level)?
4. Does type of professional development, amount of professional development, and where teachers receive professional development collectively better predict self-efficacy for secondary teachers than one single variable alone?

Chapter 2

Review of the Literature

Chapter 1 outlined the importance of providing transition services to youth with disabilities, the political mandates to provide transition services, and best practices that should be used by teachers. This chapter explores the knowledge of secondary special educators as it is related to transition. Specifically, how professional development can be used to increase teacher knowledge surrounding transition practices including their self-efficacy to implement these practices. Current research has demonstrated the need to train special educators to be able to effectively implement evidence-based transition practices in their classrooms. Special educators who use evidence-based practices can provide students with the academic and functional skills needed to succeed in employment, post-secondary education, independent living, community participation, and other transition areas. Effective professional development can influence the success of the teachers in the classroom and the successes of their students. This chapter will introduce the policies that mandate transition services for students with disabilities (i.e. the Individuals with Disabilities Education Improvement Act of 2004), as well as those that include requirements for teacher professional development. It will continue with a conceptual framework introducing how effective professional development can improve teachers practices and student outcomes. This chapter will investigate the knowledge of secondary special educators surrounding transition and identify ways in which professional development opportunities can be

used to increase their knowledge base; concluding with research needs and implications for the current study.

Policies Promoting Professional Development

Every Student Succeeds Act (2015). ESSA, a reauthorization of the No Child Left Behind Act of 2001, specifically redefined professional development by placing an emphasis on the importance of it, as well as how it would be funded. While ESSA removed the highly qualified teacher requirement (it is still included in IDEA, 2004), it did change how professional development was defined. ESSA defines professional development as a set of activities (not stand alone or 1-day workshops), that are intensive, collaborative, applicable to the position, data driven, and classroom focused (ESSA, 2015). The focus of professional development under ESSA is to increase teachers content knowledge, understand their students' abilities, and to know how to effectively use data and evidence-based practices in their classrooms. Professional development should be regularly evaluated and developed based on educator input of what they feel are effective and most beneficial to them. ESSA also encourages individual plans for teachers to address their specific needs and are developed collaboratively with the teachers. Professional developments are also offered to all school personnel, including administrators.

Individuals with Disabilities Education Improvement Act of 2004. IDEA (2004) requires that all teachers of students with disabilities are Highly Qualified Special Education Teachers. In the past, this was left up to state certification requirements, however, under IDEA (2004), for teachers to be considered highly qualified, they must be: licensed in the core subject they teach, complete professional development, meet observation criteria, take a test(s), or comply with a combination of these methods. However, there is continuously a need for teachers

to participate in professional developments for teachers to actually become highly qualified. Section 300.226(b)(1)(2) defines professional development as:

> Professional development (which may be provided by entities other than LEAs) for teachers and other school staff to enable such personnel to deliver scientifically based academic and behavioral interventions, including scientifically based literacy instruction, and, where appropriate, instruction on the use of adaptive and instructional software and (2) providing educational and behavioral evaluations, services, and supports, including scientifically based literacy instruction.

In order to encourage professional development for special educators, the Office of Special Education Programs (OSEP) encourages states to apply for the State Personnel Development Grants Program. More specifically, OSEP provides grants to help state educational agencies improve personnel preparation and professional development of individuals with disabilities by providing early intervention, educational, and transition services to improve results for children with disabilities. This type of government initiative highlights the importance of professional development activities to improve the practices of special educators by providing support to reform and improve their professional development of teachers who provide early intervention, educational, and transition services to improve outcomes for children with disabilities.

Teacher Effectiveness and Self-Efficacy

Teacher Effectiveness. Teacher effectiveness is defined as a way that teachers use specific teaching practices, define tasks, and determine success by solving problems and challenges that may be faced. More specifically the way in which teachers are self-organized, self-reflective, and self-regulating that supports the idea that self-efficacy is a part of teacher effectiveness (Bray-Clark & Bates, 2003). Further, teacher effectiveness has been defined as

teachers' abilities to use research-based practices and implement instruction to enhance and sustain student performance (Becenti, 2009). According to Campbell et al., (2003), teacher effectiveness can be influenced by teachers' self-efficacy which impacts student learning and could predict behavioral responses (Skaalvik & Skaalvik, 2014). Therefore, the measure of teacher self-efficacy with regards to their effectiveness to deliver evidence-based transition practices is critical in investigating the ways in which teachers implement evidence-based transition practices. As a way to increase teachers' self-efficacy to use evidence-based transition practices is to use professional development opportunities to increase their knowledge and skills.

Self-Efficacy. In order for teachers to deliver effective instruction to students, they need to have a higher sense of self-efficacy. Bandura (2000) states the ways in which teachers believe they are able to motivate and promote learning and increase students' achievement is based on their self-efficacy. Therefore, the framework supporting this research study is founded in Bandura's Social Cognitive Theory (Bandura, 1989). Social Cognitive Theory (SCT) is based on the belief that individuals learn from observing others, the environment, and individual's cognition. Bandura (2002) defined the core-concepts of the theory by describing how individuals' self-efficacy can affect the behavior, the response an individual receives after they perform a behavior, and the environment that supports the individuals' ability to complete the behavior (Bandura, 2002). SCT supports the need to measure teachers' self-efficacy by specifically addressing the origin of self-efficacy beliefs, their structure and functional properties, their diverse effects, the processes through which they work, and how to develop and enlist such beliefs for personal and social change. This includes the individuals background training, the environment, and their behavior in relation to their self-efficacy to perform a task. Self-efficacy is defined as an individual's belief in his/her capacity to execute behaviors

necessary to produce specific performance attainments (Bandura, 1989). In order to measure teacher self-efficacy Schwarzer, Schmitz, and Daytner (1999) developed a 10-question measure with a 4-point Likert scale where teachers can report their perceived ability to meet the challenges that may be faced in the classrooms by providing a context. These questions which provide "barriers" teachers may face made it more realistic than just providing a simple "I can" statement. However, much of the research surrounding teacher self-efficacy is related to teachers perceived performance and burnout, there is little literature investigating how teachers find ways to increase their self-efficacy. Research shows that when self-efficacy is low, teachers' performances are low and they are less likely to deliver effective instruction to their students (Schwarzer & Hallum, 2008; Skaalvik & Skaalvik, 2007; Skaalvik & Skaalvik, 2009). Some studies that have investigated teacher knowledge and self-efficacy have been focused around math education and the use of technology in the classroom (Albion, 1999; Swackhamer, Koellner, Basile, & Kimbrough, 2009). Both of these found that when teachers' perceived knowledge increased or they felt confident in these areas, they had increased self-efficacy as well. Therefore, understanding teachers' beliefs on how they improve their use of evidence-based transition practices, after accessing professional development can give insight to how they feel their knowledge, skills, and use of these transition constructs changed.

Professional Development

Teachers' instructional practices are influenced by their educational certifications, experiences, qualifications and personal characteristics, such as attitudes and expectations brought to the classroom (Goe & Stickler, 2008). Teachers' effectiveness also influences teachers' instructional practices; the degree to which teachers contribute to their students' learning, One way to improve teachers' instructional practices is through professional

development (Goe, 2008). Desimone (2009) developed a framework based on research that would support the exploration of the effects of professional development. Based on research by Garet et al. (1999) and Desimone (2009), professional development would effectively be conducted by allowing the teachers to experience professional development, having the professional development increase teachers' knowledge and skills; giving an opportunity for teachers to apply what they learned to improve the content of their instruction or their approach to pedagogy, or both and have those instructional changes foster increased student learning. This conceptual framework can be used to understand ways in which professional development increases teachers' knowledge surrounding transition that can then be used to influence student outcomes.

Figure 1 illustrates the effective practices for professional development, followed by the ways in which the learning is applied.

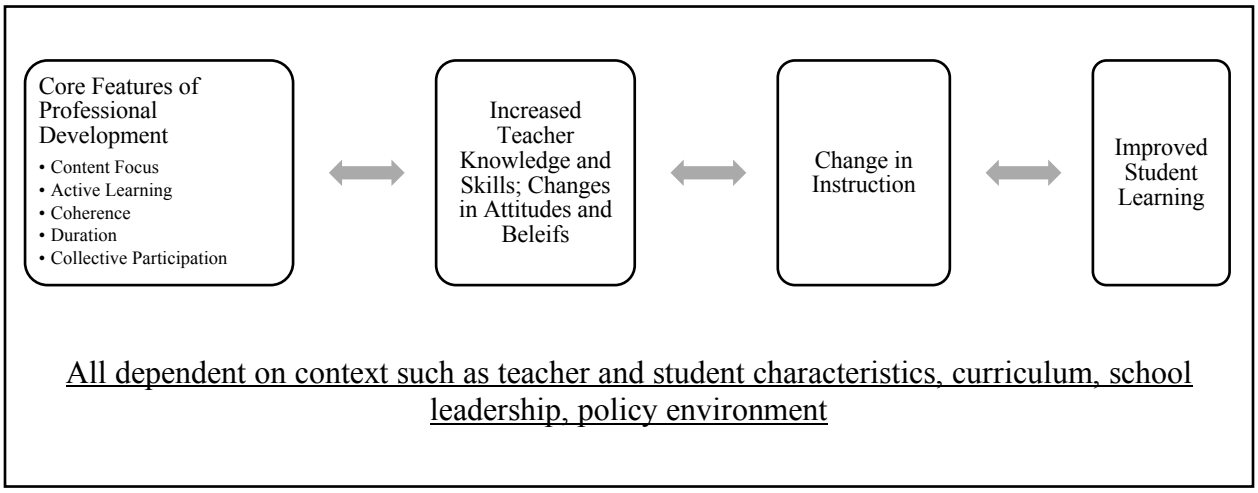

Figure 1. Proposed core conceptual framework for studying the effects of professional development on teachers and students (Desimone, 2009).

Knowledge of Transition

Teachers' knowledge of transition is critical to improving student outcomes. Kohler, Gothberg, and Coyle's (2016) developed a framework, *Taxonomy for Transition 2.0*, that

promotes the use of evidence-based practices across five primary practice categories to ensure successful transition outcomes for students with disabilities (Morningstar & Clavenna-Deane, 2014). Kohler's original framework (1996) was developed based on the use of concrete practices and effective programs; yet, the framework has since been updated to include "the latest literature regarding predictors of post-school success, strategies to increase graduation and reduce dropout, school climate, and vocational rehabilitation services focused on fostering successful transition of youth with disabilities in college and careers" (Kohler, 2016, p. 2). The framework is divided into five categories based upon literature and research (Test et al., 2009) in the field of secondary special education which includes: student focused planning, student development, interagency collaboration, family engagement, and program structure. Test et al. (2009) identified 32 secondary transition evidence-based practices which are found embedded in the five categories. The five areas focus on different aspects of effective transition practices.

Student-Focused Planning. Student focused planning involves identifying a student's goals and interests and putting supports in place to help the student achieve his or her goals and experience post-school success (IRIS, 2018). Student focused planning includes IEP development, planning strategies, and student participation that is based on meeting the student's individual needs (Kohler, 2016).

Student Development. Grounded in prior research building upon the foundation of student-focused planning and promoting the use of evidence-based practices, student development helps teachers to identify the skills, behaviors, and knowledge a student needs to be successful in the areas of education, independent living, and employment. To help students to develop these skills, behaviors, and knowledge, the teacher can use a number of evidence-based practices, five of which are highlighted below (IRIS, 2018). The evidence-based practices which

are highlighted in the taxonomy include the use of community-based instruction, self-determination, academic study strategies, computer-aided instruction, and the use of technology (Kohler, 2016).

Interagency Collaboration. Interagency collaboration focuses on including all stakeholders in the process (i.e. students, parents, educators, community agencies, postsecondary educators, employers) where roles are clearly defined and responsibilities are shared to ensure the collaboration is successful. Contact people must be identified and included among these stakeholders in the entire transition process (Kohler, 2016).

Family Engagement. Family engagement focuses on the families' involvement in the transition process, including the parents or guardians helping their child plan for the future and in supporting them during the transition process. This is important, as parents are often the only people who remain part of the transition planning process and their child's IEP team throughout the school years (Kohler, 2016).

Program Structure. Finally, program structure focuses on the transition program for the student; which includes, the program characteristics, evaluation, strategic planning, policies and procedures, resource development and allocation, and school climate. Program structure is an important part of the taxonomy, as it is the foundation of elements necessary for school personnel to efficiently and effectively implement transition services. This component must be in place if the other components of the taxonomy are to work well (Kohler, 2016).

Across these five categories, studies in the field of special education have measured how secondary special educators use these practices in their classrooms, specifically focusing on the use of evidence-based practices and/or knowledge of transition services for students with

disabilities. In the past, this research has investigated pre-service teacher training, along with ways in which teachers' skills were developed across the varying areas of transition.

Benitez, Morningstar, and Frey's (2009) examination of the knowledge and perceptions of transition competencies of secondary special educators revealed that special educators lack the knowledge of transition competencies, which can in-turn positively affect student transition outcomes. The researchers identified that personnel preparation programs were not preparing teachers to deliver effective transition services to students. Teachers reported competencies were sometimes embedded throughout the program, rather than in one focused course. Furthermore, teachers also reported they did not feel prepared for collaborative practices and were not confident in working with related service providers to give students what they needed. In 2013, Morningstar et al., expanded on these findings by evaluating teachers' preparation further, indicating that personnel preparation programs were rarely offering transition specific courses, and that teachers' use of transition practices were often influenced by the completion of transition courses, or professional development opportunities during practice. Similarly, Plotner, Mazzotti, Rose, and Carlson-Britting's (2015) investigation of factors that influence teachers' use of effective practices for transition, also found that most teachers never received training on transition evidence-based practices, nor gained the needed knowledge from their pre-service preparation programs. However, when teachers were provided direct instruction in these areas, they were more likely to use these evidence-based practices to meet their students specific and independent needs. Further investigation of teacher competencies continues to identify that teachers are continuously facing the same challenges regarding knowledge of transition competencies (Benitez et al., 2009; Henry, 2015). However, teachers have reported, that the most beneficial professional development and support for growth has come from administrators

providing mentoring to effectively develop transition plans and complete the transition planning process (Henry, 2015). A study by Jacobs (2017) further explored the challenges teachers face surrounding transition. Findings suggested, special educators had the most challenge with transitioning students to post-secondary settings and that the transition coordinators should be the experts in these areas. Yet, Kohler's framework encourages collaboration among service providers, including teachers and transition coordinators. Further, Mazzotti and Plotner (2016), investigated transition service providers' implementation of secondary transition evidence-based practices. It was found that teachers valued the use of evidence-based practice and saw them as important, yet still received limited training opportunities and preparation related to transition evidence-based practices. However, teachers also reported they did not receive professional development trainings; a factor which was identified in the aforementioned studies as a way teachers increased their knowledge and improved their transition practices.

The previously mentioned studies identified that teachers lack the knowledge needed to provide effective, evidence-based, transition practices to students with disabilities. The findings were from national samples, and most used quantitative data analyses to identify teachers perceived competencies. The studies identified areas in which teachers lacked training, and in some studies ways in which teachers increased their knowledge about transition practices. Although it is evident personnel preparation programs are not effectively preparing secondary special educators to meet the needs of students, it is critical to investigate ways in which professional development opportunities are used to increase teachers' knowledge and use of evidence practices in the classrooms.

Professional Development to Increase Knowledge

Research and policies have identified competencies and practices of what teachers should know in order to increase students' outcomes, including meeting academic and functional needs of students with disabilities. Professional development opportunities increase teacher knowledge and practice and improves student outcomes (Darling-Hammond et al., 2009; DeMonte, 2013; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). Based on findings from the School and Staffing Survey (IES, 2011), about 85 percent of teachers participated in professional development opportunities that were related to their specific content areas. However, most teachers spent less than 8 hours on different types of professional development over an academic school year (Rotermund, DeRoche, &Ottem, 2017). Those that participated in professional development related to math and reading, spent significantly more amounts of time in professional developments (20-30 hours) over the course of the year. Yet, it is identified that when teachers participate in professional development either during the school days, or out of school, it can have a positive effect on teachers' effectiveness (Bayar, 2014); and that professional development is the best way to positively affect a teachers' practice (Hirsch, 2001).

There are a variety of types of professional developments used across the field of education. The different types of professional development that are offered can include trainings, observations, professional learning communities, coaching, and mentoring. By using a combination of these professional practices, teachers have reported greater change in their practice, rather than just using one session or a single approach (Garet et al., 2001). A majority of teachers from the IES School and Staffing Survey said during professional developments, they regularly collaborate with fellow teachers, participate in observations (early career teachers observing veteran teachers) and receive most of their professional development trainings during

the school days. Other teachers reported going back to school and earning continuing education credits (Rotermund, DeRoche, & Ottem, 2017). Findings suggested, that when teachers engaged in professional developments, it increases their content knowledge and classroom pedagogy that promote student learning and increase outcomes (Blank & de las Alas, 2009; Gersten, Taylor, Keys, Rolfhus, & Newman-Gonchar, 2014; Rotermund, DeRoche, & Ottem, 2017). A study by Garet et al. (2001) identified the effects of professional development on teaching practices. By comparing focused professional development (one effective strategy) compared to multiple strategies, it was found that more focused professional developments were more likely to be applied by teachers in their classrooms rather than professional developments that introduced a variety of strategies. It was also noted that when technology was incorporated in professional developments, teachers were more engaged. Professional development opportunities are critical in developing teachers' competencies and efficacy to deliver and use effective instructional practices in their classrooms, while also meeting the needs of the students, school, and district. There are six characteristics that have been identified to ensure that professional development is effective. These six characteristics include:

1. Engaging teachers in concrete tasks of teaching, assessment, observation, and reflection that illuminate the process of learning and development,
2. Grounded in inquiry, reflection, and experimentation that are participant-driven,
3. It is collaborative, including sharing knowledge among educators and a focus on teachers' communities of practice rather than individual teachers,
4. Must be connected to and derived from teachers' work with their students
5. Must be sustained, ongoing, intensive, and supported by modeling, coaching, and the collective solving of specific problems of practice, and

6. It must be connected to other aspects of school change

According to Darling-Hammond and McLaughlin (2011) these characteristics have supported the research by Garet et al., (1999; 2001) and Desimone (2009). They have also been reported as effective by teachers and validated by research.

Effective Professional Development for Special Educators.

There have been many studies in the field of general education focusing on ways to provide effective professional development practices; with much of this professional development focused on specific content areas. These content specific professional development practices focus on how students develop their knowledge in the varying content areas, whereas special educators might need a better understanding of how students with disabilities learn subjects, including ways to differentiate instruction, and implement effective interventions (Sindelar et al., 2010). However, for special educators, professional development across content areas, and classroom management techniques are critical. Past studies have identified that most special educators possess strong classroom management skills, but lack content knowledge (Bishop, Brownell, Klinger, Leko, & Galman, 2010; Brownell et al., 2009; Sweigert & Collins, 2017). In order to effectively train special educators to meet the needs of their students, the professional developments that are offered must be coherent, therefore, offering opportunities that specifically meet the goals and needs of the teachers (Penuel, Fishman, Yamaguchi, & Gallagher, 2007). This includes instruction in specific content areas along with identifying ways in which to connect the academic needs to the functional needs of the students. When professional development focuses on specific content related areas, it has the greatest influence on teachers practice (Yoon et al., 2007). Similar to Kohler's framework, collaboration is

important when doing professional developments; this gives educators an opportunity to learn from one another, share ideas, and work together for greater outcomes (Garet et al., 2001).

Leko and Brownell (2009), identified ways to effectively design professional development for special educators based on prior research and policies. These practices include:

- bringing in experts from the field and districts,
- incorporating technology,
- collaboration with general education and amongst other special educators,
- content specific instruction, highlighting evidence-based practices and providing sample lessons (modeling),
- having teachers bring assessment data and lesson plans to use during the professional development,
- having teachers practice strategies through role-playing, videos and/or modeling,
- giving them resources to identify key concepts and evidence-based practices,
- providing frameworks teachers can use, and
- continuously following-up to keep the process ongoing while providing feedback on their instruction.

These strategies also align with Darling-Hammond and McLaughlin (2011) strategies for effective professional development and findings from Desimone's (2001) study.

Sindelar, Brownell, and Billingsley, (2010), mentioned that in order for professional development to be effective, it must develop teachers' knowledge, skills, and professional dispositions. For example, Garet, Desimone, Birman, and Yoon (2001) found that using multiple forms of professional development had a greater impact on teachers' performances and use of evidence-based practices, including the professional developments being more meaningful to the

participants. This study investigated the effects of coaching, including using content-focused learning practices as well. Similarly, Brock and Carter (2013) evaluated the effects of coaching and modeling with video-demonstration, role play, and discussions increased the special educators' abilities to implement-evidence based practices, indicating that using more than one professional development practice was more effective than just one-type. Finally, direct instruction is also a commonly used practice when increasing special educators' knowledge and use of effective practices in their classrooms. Studies have shown that when teachers were provided direct instruction, they were more likely to apply what they learned to their classrooms (Desimone et al., 2002; Desimone, 2009; Garet et al., 2001; Yoon et al., 2005). These varying professional development practices and strategies can all be used to increase teachers' knowledge. While identifying effective practices for professional development, Zhang, Lundeberg, Kohler, and Eberhardt (2011), identified the importance of ongoing professional development; by finding that throughout the school year, teachers needed additional instruction and guidance to improve their content knowledge, and instructional practices.

With effective types of professional development activities identified and teachers' significant lack of knowledge surrounding effective transition practices for students with disabilities, it is critically important to understand ways teachers access information to increase their knowledge surrounding transition evidence-based practices. Very few studies have investigated this particular area; however, Plotner et al., (2016) found that most secondary special educators report rarely receiving resources related to transition evidence-based practices from their districts. Instead, most of the teachers obtain access to this knowledge through reading professional journals. However, based on the previous literature, one method of development is not enough to effectively provide teachers the resources they need to increase their knowledge

surrounding the use of evidence-based transition practices in their classrooms. Therefore, it is important to better understand how teachers are applying what they are learning into their classrooms.

Professional Development Specifically Related to Transition

Plotner and colleagues' (2016) study on the extent to which middle and high school special educators and other transition professionals accessed knowledge related to secondary transition evidence-based practices identified that secondary special educators and transition related service providers rarely receive transition specific professional developments. However, there has been a small number of studies that have investigated the ways in which transition specific professional developments were provided to teachers. First, Doren, Flannery, Lombardi, and Kato's (2012) examination of IEP quality after receiving a content-specific training within a professional learning community found that this type of professional development was directly linked to increased quality on IEP goals, specifically those related to transition. Similarly, when a two-day training was presented, participants were able to increase their performance for writing measurable transition specific goals (Flannery, Lombardi, & Kato, 2015). Another study, focused on improving transition practices of teachers for students with disabilities, and investigated the use of direct instruction on teachers' abilities to adapt lesson plans to include academic and functional skill standards; it was found that after direct instruction, teachers abilities increased to differentiate academic instruction but also embed functional skill instruction as well (Scott, Bruno, Gokita, & Thoma, n.d.). Other trainings that are offered to increase teachers' knowledge and use of instructional practices included online trainings, webinars, and YouTube presentations, all of which were also found to increase teachers transition related knowledge (Inge, Graham, Erickson, Sima, West, & Cimera, 2016; Kim & Morningstar, 2007). Findings

also suggest that when professional developments are specifically related to teachers' interests, are meaningful to their practice, are collaborative, and occur over time using coaching, feedback, and continuous training, teacher outcomes and use of evidence-based practices are greater. While these studies have focused on the effectiveness of certain professional development practices and ways in which it directly influenced teachers' practice, there has been no investigation on the ways in which teachers access professional developments to increase their knowledge and improve their own practices, as well as identifying the ways the training was beneficial and what topics were primarily focused upon.

Professional Development to Improve the Use of Transition Evidence-Based Practices

In order to increase transition outcomes for students with disabilities, teachers should know how to successfully implement evidence-based transition practices. Yet, research identified that teachers are not feeling prepared to provide transition services (Bentiez et al., 2009; Blanchett, 2001). Teachers reported having to seek out their own resources and knowledge to implement evidence-based transition practices and not having this knowledge provided in their teacher preparation courses (Mazzotti & Plotner, 2016; Plotner Mazzotti, Rose, & Carlson-Britting, 2015). With the evidence-based practices already established based on prior research (Test et al., 2004) and policies mandating transition for students with disabilities and professional development for teachers; it is imperative that further research be conducted to identify how teachers are developing their transition related competencies. Very few studies have been published focusing on effective professional development practices for secondary special educators (Holzberg, Clark, & Morningstar, 2018). Therefore, using Desimone's (2009) conceptual framework on effective professional development practices, the change in teachers, and application of knowledge; further research will be used to investigate how teachers are

accessing transition specific professional development opportunities (provided in and out of their districts) and how they apply what they learn to their practice. The focus of this study investigated the ways in which teachers increase their knowledge and abilities to use evidence-based practices with their students.

Research Needs and Implications for the Current Study

Teachers' instructional practices influence students' outcomes (Yoon et al., 2007), yet university personnel preparation programs are not preparing teachers to meet the transition needs of students with disabilities (Morningstar & Clark, 2003; Plotner, Mazzotti, Rose, & Carlson-Britting, 2016). Special educators are required to meet students' academic and functional needs, specifically related to transition; research has shown that special educators see the importance of effective transition practices but lack the competency to successfully implement these practices. Therefore, based on what is known about effective professional development practices, teachers can increase their skills and knowledge by receiving instruction in specific evidence-based transition practice areas. As mentioned earlier, few studies have investigated the ways in which secondary special educators receive professional development to improve their transition practices. Thus, a study of current special education practitioners was needed to better understand what types of professional development teachers attended, which they found to be most effective, and how the professional development improved their knowledge and skills around transition including how were they able to apply what they learned to their classrooms.

While past research investigated the use of professional developments on developing postsecondary goals (Doren et al., 2012), transition related components of the IEP (Flannery et al., 2015) and the effectiveness of online trainings (Kim et al., 2007), research has not specifically investigated what professional development activities special educators attended,

what they learned (related to evidence-based transition practices) and what they perceived as effective transition related professional development. By better understanding these areas, states and districts can better focus their professional developments requirements to meet the specific needs of teachers by using content-focused instruction that is also job specific, incorporating on-going professional development opportunities (i.e. coaching and mentoring), and involve collaboration among all educators (Desimone, 2009). Ideally, professional development for special educators would focus on these specific areas, while promoting collaboration with general educators, and focusing on evidence-based practices that teachers can implement in their classrooms; all with an end goal to improve students' outcomes (Sindelar et al., 2010).

Chapter 3

Methodology

Chapter three is a description of the methodology and procedures that were used to conduct this quantitative study. This study evaluated the ways in which professional development influences secondary special educators perceived self-efficacy as it relates to delivering effective evidence-based transition practices. The literature explained that secondary special educators lack the knowledge and skills needed to effectively deliver evidence-based transition practices to students with disabilities. Therefore, the goal of this study was to explore the relation between transition specific professional development and the ways it may impact secondary special educators' knowledge and self-efficacy surrounding the use evidence-based transition practices. This study identified the types of professional developments that are delivered, where they are delivered, the amount of professional development received, and how teachers obtain and applied the information.

Research Design

This study employed a correlational research design utilizing a cross-sectional (data collected at one time point) survey (Creswell, 2018). A correlational research design uses the correlational statistic to describe and measure the relationship between one or more variables (Creswell, 2012). This design was appropriate as it assisted in answering the research questions by identifying relationships between the variables and providing descriptive statistics (Creswell, 2018). Based on the potential relationship of the variables that will be measured, the correlation

design allowed for the strength and direction of the variables to be measured, which could later lead to research to possibly determine a causation (Creswell, 2017). Further, benefits of utilizing an online survey design include the rapid turnaround for data collection; whereas, the use of an experimental design would not be feasible without first knowing the professional developments being offered. Fowler (2014) described the benefits of utilizing Internet surveys; these include: (a) reaching people that are less intrinsically (b) motivated to participate than others, (c) cost-effectiveness, (d) high speed rates of return (fast), (e) efficient, (f) direct data entry, and (g) higher participation rates (Fowler, 2014; Sue & Ritter, 2012). Conversely, Dillman, Smyth and Christian (2009) stated internet survey rates can vary depending upon the survey population, topic, survey burden, and other survey characteristics and find that internet response rates are generally low. Therefore, Dillman (2014) suggested using multiple modes of data collection and follow up methods to increase response rates. Although Dillman argued response rates may be low, e-mail surveys provide the speed, economic, convenience, and simplicity for recruitment and quick turn-around times (Sue & Ritter, 2012). Therefore, for the purpose of the study, the use of an online, e-mail-based survey is the most logical and simplistic form for data collection.

Independent Variables. The independent variables measured in this study include (a) the amount of professional development received; (b) type of professional development teachers participated in and (c) location of the professional development. These were measured on the survey with continuous and categorical scales that aim to ask teachers to respond to how much time they have spent accessing professional development and types of professional development, respective of how it related to using evidence-based practices to provide transition services for students with disabilities.

Dependent Variables. The main dependent variable measured is the teachers' perceived self-efficacy and effectiveness. This was measured on a continuous scale by asking teachers to what extent do they feel that their knowledge and skills have been enhanced in each of the following areas as a result of their participation in professional development activities and to what extent have they made each of the following changes in their teaching practice as a result of the professional development activities? Teachers rated their perceived self-efficacy in the areas of transition identified in Chapter two. This will be able to show not only if teachers felt their knowledge surrounding the use of evidence-based practices increased, but also seeing the ways in which it influenced change in their classrooms. Lower scores will indicate minimal perceived change or no increased perception of knowledge and skills, whereas higher scores will indicate increased perceived knowledge and skills and changes in their classrooms.

This study is guided by the following research questions:

The general research question is: What types of professional development activities do secondary special educators access to improve their knowledge and skills relevant to delivering evidence-based transition practices for students with disabilities? The following four specific research questions will be addressed:

1. Is there a relationship between the level of perceived self-efficacy surrounding transition and the types of professional development training received?

    H1: There is a positive correlation between the level of perceived self-efficacy surrounding transition and the types of professional developments training that were received.

Ho1: There is no correlation between the level of perceived self-efficacy surrounding transition and the types of professional developments training that were received.

2. Is there a difference in the level of perceived self-efficacy related to the use of evidence-based transition practices and the amount of professional development among secondary special education teachers?

   H2: There is a difference in the level of perceived self-efficacy related to the use of evidence-based transition practices and the amount of professional development among secondary special education teachers

   Ho2: There is no difference in the level of perceived self-efficacy related to the use of evidence-based transition practices and the amount of professional development among secondary special education teachers

3. Is there a difference in the level of perceived self-efficacy regarding the use of evidence-based transition practices based on where teachers receive professional development (i.e. professional organizations, state level, district level, school level)?

   H3: There is a difference in the level of perceived self-efficacy regarding the use of evidence-based transition practices based on where teachers receive professional development

   Ho3: There is no difference in the level of perceived self-efficacy regarding the use of evidence-based transition practices based on where teachers receive professional development.

4. Does type of professional development, amount of professional development, and where

teachers receive professional development collectively better predict self-efficacy for secondary teachers than one single variable alone?

H4: The type, amount, and where teachers received professional developments do collectively matter when increasing secondary special educators' self-efficacy to delivery evidence-based transition practices for students with disabilities.

Ho4: The type, amount, and where teachers receive professional developments do not collectively increase secondary special educators' self-efficacy to deliver evidence-based transition services for students with disabilities.

Participants. This study employed a randomized single-stage sampling design. A single-stage sampling procedure is one in which the researcher has access to names in the population and can sample the people directly (Creswell, 2018). Participants were recruited directly through the *Division on Career Development and Transition* (DCDT). DCDT is a national organization that is a sub-division of the international organization Council for Exceptional Children (CEC), which is one of the largest organizations for special education. CEC is a professional association of educators that is dedicated to advancing the successes of children with exceptionalities. DCDT includes over 1200 transition professionals, including researchers, doctoral students, self-advocates, parents/guardians, teachers, transition specialists, job coaches and more from across the country with a focus on "improving the quality of and access to career/vocational and transition services, increase the participation of education in career development and transition goals and to influence policies affecting career development and transition services for persons with disabilities" (DCDT Mission, 2018). DCDT seeks to provide a foundation for work with transition professionals and blends the expertise of researchers and practitioners to improve the field of transition. With the survey being sent out to over 1200 members and some of them not

being practicing teachers, and the typical response rate for online surveys being close to 30% (Fowler, 2014), it was ideal to obtain close to 100 participants. Eligibility criteria included that the participant be a special educator for grades six through 12 in either a private or public-school setting. An a-prior statistical power analysis was performed for sample size estimation using an exact correlation (Creswell, 2018). The effect size in similar studies was .8, which was considered to be large using Cohen's (1988) criteria. Cohen stated that a small effect ranges from r = .20 - .49; a medium effect size is r = .50 - .79; and, a large effect being r = .80 or greater. Therefore, to be conservative, an effect size of .6 was used, with an alpha = .05 and power = 0.80, the projected sample size needed with this effect size (GPower 3.1) is approximately N = 26 for this study.

Instrumentation. The measure used to collect the data was the *Teacher Activity Survey* (Garet et al., 1999); permission was obtained from the author in order to collect the information needed for this study. The *Teacher Activity Survey* was used as part of the Eisenhower Professional Development Program focused on evaluating teachers' experiences. With an emphasis on improving education with high standards of learning and teaching, the Eisenhower Professional Development Program was part of a federal program under Title II of the Elementary and Secondary Education Act to develop the knowledge and skills of teachers. The survey was created to have teachers describe how professional development has changed their instruction and has been found valid and reliable. The creators of the survey used past research and literature to identify what represented "high quality professional development". The areas that were identified are shown in Figure 2 and described below.

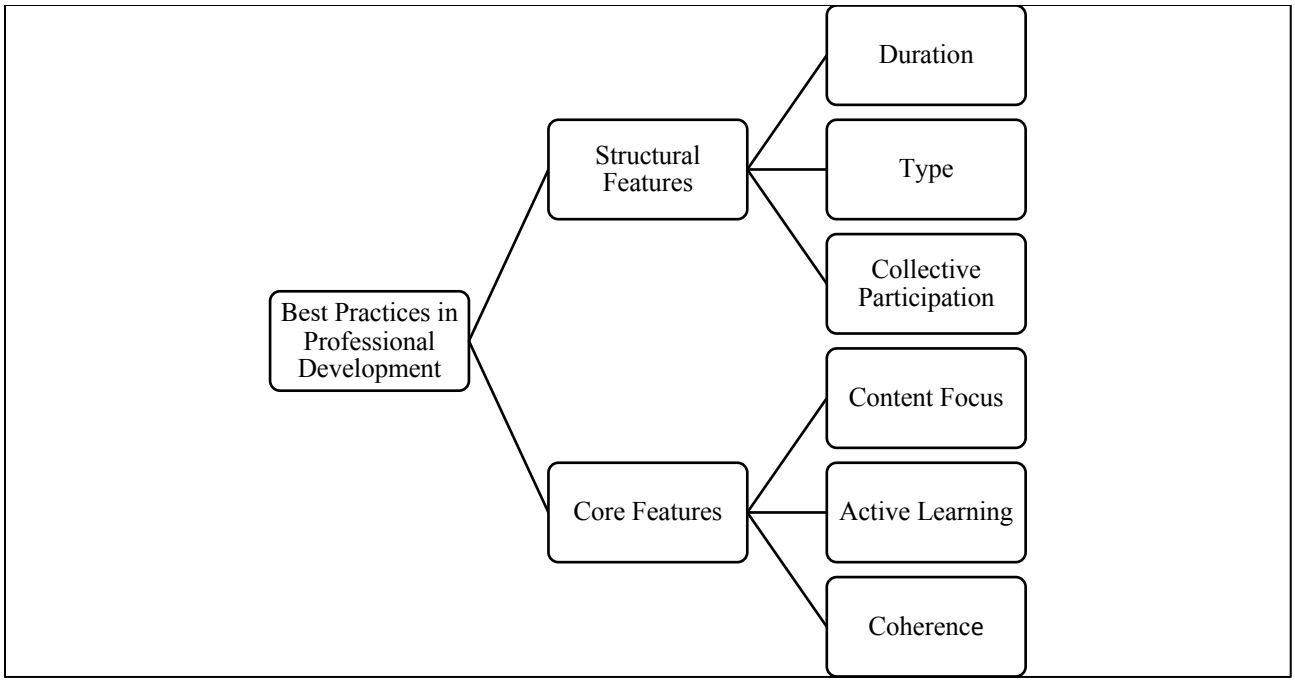

Figure 2. Best Practices in Professional Development (Garet et al., 1999, p.3-5).

Aspects of the survey consist of: study groups, teaching networks, coaching, mentoring, workshops, committees, etc.; Duration is the total number of hours the participants spent in the activity; Collective Participation includes having groups of teachers from the same schools, district, or grade level; Content Focus includes the degree to which the activity is focused on improving and deepening teachers knowledge in a specific area; Active learning is opportunities for teaching to engage in the learned practice and receive feedback; and Coherence is incorporating experiences that are consistent with teachers' goals and are aligned to state standards and assessments.

The original measure utilized a total of 45 questions. Questions range in type of answering mode from: choose only one response, to circle all that apply, yes/no questions, and Likert scales that vary depending on the construct area. For example, rating scales are used for teachers to report their experiences across the following areas: collective participation (0 = no emphasis to 2 = major emphasis), coherence (1= not at all to 5 = great extent), and enhanced

knowledge and skills (1 = no change to 3 = significant change). Active learning and changes in teaching practices are rated using "all that apply" options to identify ways in which they were assessed and how their behavior changed.

Reliability was calculated using Cronbach's alpha to measure the internal consistency of the different areas, specifically, how closely related a set of items are as a group, these are reported in Table 1. Based on the scores of reliability, four of five reported areas fall within the optimal value range for Cronbach alpha scores of .7 - .9 (Creswell, 2018). It was also noted that "a number of steps were taken to maximize the validity and reliability of the evaluation's national survey data. Most of the survey questions ask teachers and administrators to provide an account of behaviors, not direct judgement of quality that might be more likely to be biased" (Garet et al., 1999, p. 7-3). While validity was not directly reported, the authors stated: "substantial variation in the responses teachers and district administrators provided to these items, as well as the consistency in response, bolster the confidence in the validity of the data." (Garet et al., 2001, p. 7-3). This survey has also been used as a measure for other peer-reviewed studies of professional development (Desimone et al. 2002; Garet et al., 2001; Graham, 2006; Porter et al., 2003, 2000).

The original measure utilized a total of 45 questions specifically investigating the increased knowledge surrounding mathematics and science. The original measure was modified to include competencies relating to evidence-based practices of transition and measures of self-efficacy. The use of evidence-based practices was identified from the *Taxonomy for Transition Planning 2.0* (Kohler et al., 2016) framework and divided into two sections. The first part of the survey collected demographic information such as (a) school setting (rural, suburban, urban), (b) number of years teaching, (c) disability category taught, (d) grade level(s) of students, (e) type of

classroom (inclusion, self—contained, private day setting, resource, etc.). The second part was a modified version of the *Teacher Activity Survey* and questions were changed to include language related to transition and measuring teacher self-efficacy based on the 32 evidence-based practices identified by Test and colleagues in 2009. For example, using words such as "knowledge and skills have been enhanced" or "I have made change in…" While the survey was originally created to measure teachers' knowledge in mathematics skills, those specific questions were changed to focus on transition evidence-based practices that were identified in chapter 2. Like the original version, rating scales were used for teachers to report their experiences across the following areas: collective participation (1 = no emphasis to 3 = major emphasis), coherence (1= not at all to 5= great extent), and enhanced knowledge and skills (1 = no change to 4 = significant change). Active learning and changes in teaching practices are rated using "all that apply" options to identify ways in which they were assessed and how their behavior changed.

Table 1

Measure of Internal Consistency for Teacher Activity Survey

Professional Development Best Practice	Cronbach's Alpha
Collective Participation	.35
Content Focus	--
Active Learning	.84
Coherence	.71
Enhanced Knowledge and Skills	.78
Change in Teaching Practice	.87

Pilot Testing. The *Teacher Activity Survey-Transition* was modified as mentioned above. Pilot testing was used to establish content validity and improve questions, format, and instructions (Creswell, 2018). A pilot test and feedback were used to determine how long the survey would take and identified potential concerns from participants. The pilot test was first reviewed by a group of experts (including researchers and doctoral students). Feedback included

the survey took approximately 15 minutes, as well as, minor revisions including re-wording of questions for clarity. Additional questions were added that included specification of location (i.e. online, in-person, or hybrid), if the participants accessed professional development through DCDT, and the reasons for attending the professional development. Upon completion of pilot testing, changes were made accordingly before being disseminated.

Data Collection

Upon approval from the Institutional Review Board (IRB), the survey was administered electronically using Google Forms, a secure, password protected electronic data collection system. The survey was sent out to target secondary special educators, transition coordinators, and/or job coaches from across the 50 states. Upon approval of the executive board, the e-mail was sent by an administrator of the DCDT organization who has contact information for members. The introductory message was embedded in a blast email asking participants to partake in the survey (Appendix A) and included a link to the survey. The e-mail included instructions that directed at all members of the organization to only complete if they are currently practicing in a role that includes working directly with secondary students in special education (grades 6-12) and providing transition related services to these students. All participants had the opportunity to choose to partake in the survey independently. The survey was made available on June 21, 2018. Questions about a follow-up email were sent to the administrator of DCDT on June 29, 2018 and tracked the executive board's decision via three more e-mails through July 12, 2018. A final attempt to have the survey redistributed by the organization occurred on July 16, 2018, where no response from the board was given, therefore, a follow-up blast e-mail was not sent. Data analysis began on July 17, 2018.

Data Analysis

Data was analyzed using *IBM Statistical Pack for the Social Science (SPSS) Statistics 24 for Mac,* an advanced statistical analysis software used to analyze data. The first step in data analysis was to analyze the descriptive information from the demographic data, including the number of participants in the survey, response rate, and characteristics of the participants. Descriptive statistics were run on the independent (professional development) and dependent variables (self-efficacy related to transition) used in the study to determine means and standard deviations. Based on the research questions, the following types of analyses were used: Analysis of Variance (ANOVA) and Multiple Linear Regression.

The general research question in this study was: What types of professional development activities do secondary special educators' access to improve their knowledge and skills around delivering evidence-based transition practices for students with disabilities?

a. To identify the types of professional development activities secondary special educators typically access to improve their knowledge and skills to deliver evidence-based practices for students with disabilities, descriptive analysis were conducted to identify the frequencies of the different activities reported. Standard deviations and means were reported.

1. Is there a relationship between the level of perceived self-efficacy surrounding transition and the types of professional development training received?
    a. In order to determine the difference between teachers perceived self-efficacy and the types of professional development trainings that were received, an ANOVA was conducted due to the varying levels within the professional development variable. This was able to determine if teachers felt their self-efficacy increased

from one type of professional development compared to the other. The Levene's test was used to determine if a robust analysis should be used to determine if variances of the groups are the same. If the ANOVA is found to be significant ($p < .05$) then it is determined there is a difference between the perceived self-efficacy and types of training received.

2. Is there a difference in the level of perceived self-efficacy related to the use of evidence-based transition practices and the amount of professional development among secondary special education teachers?
    a. In order to determine the difference between teachers perceived self-efficacy and the amount of professional development trainings that were received, an ANOVA was conducted to compare the different amounts of time to teachers perceived self-efficacy. The Levene's test was used to test the null hypothesis, which suggests the variances of the groups are the same. If this test is found to be significant ($p < .05$) then it is determined there is a difference between the perceived self-efficacy and amount of training received.
3. Is there a difference in the level of perceived self-efficacy regarding the use of evidence-based transition practices based on where teachers receive professional development (i.e. professional organizations, state level, district level, school level)?
    a. In order to determine the difference between teachers perceived self-efficacy and the location of professional development trainings that were received, an ANOVA was conducted to measure where teachers with higher perceived self-efficacy received their trainings compared to those with lower self-efficacy. The Levene's test was used to test the null hypothesis, which suggests the variances of the

groups are the same. If the significance of this test is found to be significant ($p < .05$) then it is determined there is a difference between the perceived self-efficacy and level of where training is received.

4. Does type of professional development, amount of professional development, and where teachers receive professional development collectively better predict self-efficacy for secondary teachers than one single variable alone?

A multiple linear regression was conducted to determine if the independent variables (type, amount, location) collectively predict the dependent variable. If the findings suggest that all of the variables are statistically significant ($p < .05$) then, the null hypothesis can be rejected. Otherwise, it could be determined which variables do better predict self-efficacy. The equation model for a multiple linear regression was used and reported, as well as, R^2, the coefficient of multiple determination (i.e. the percentage of the variance explained as a linear model). R^2 always falls between 0 – 100%, which if 0% indicates the model explains none of the variability of the response data around its mean, whereas 100% indicates the model explains all of the variance.

Conclusion

Chapter three explained the methodology chosen to conduct this survey, the research questions with null and alternative hypotheses, and description of participants. This chapter also included the instrumentation that was used to collect data. Data analysis was described based on each research question, including the statistical procedures that was used. Chapter four presents the results of this study.

Chapter 4

Results

This chapter will present the results of the pilot study, data collection and the research questions described. The chapter is organized into five sections (a) pilot study results, (b) demographic data, (c) description of professional development activity, (d) perceived teacher effectiveness, and (e) data analyses. The first section presents the reliability of the data. The second section presents descriptive on both demographic data and survey responses during data collection, including reported gender, years teaching, professional role, highest degree obtained, setting, classroom setting, and grade levels taught. The third section presents data on the independent variables including a description of the professional development activity, means, standard deviations, frequencies, and percentages. The fourth area focuses on teachers' perceived effectiveness, in other words, the teachers' level of confidence in providing evidence-based transition practices to students with disabilities. Information is presented on the extent to which teachers made changes within their classrooms and use of new skills in their classroom. Finally, the fifth section reports on the data analyses used to answer the research questions. An analysis of variance (ANOVA) test was used to examine the relationship and differences between the dependent variable and independent variables for each of the first three research questions and a multiple regression was conducted to analyze if the three independent variables predict teachers perceived effectiveness.

Pilot Study Results

The pilot study included three participants. Reliability for the measures used in the study were calculated using Cronbach's alpha to measure the internal consistency of each scale. The purpose of this was to determine how closely related a set of items are as a group. Based on the scores of reliability all of the areas fall within the optimal value range for Cronbach alpha scores of .7 - .9 (Creswell, 2018). The reliability scores for each subsection in the measure include: (a) emphasis on evidence-based transition practices ($\alpha = .948$); (b) reason for the professional development ($\alpha = .892$); (c) perceived effectiveness to deliver evidence-based transition practices ($\alpha = .975$); (d) extent to which change was made ($\alpha = .884$); and (e) total survey ($\alpha = .983$). These results indicate the measure had high internal consistency and that all questions were grouped accordingly.

Demographic Data

An e-mail including survey was sent to a total of 7,502 DCDT participants, opened by 1,579 (29%) and accessed by 240 (15.2%). Of those that clicked on the survey, 37 surveys were completed (15.4%). Demographic data were collected on survey questions 1-10 of the *Teacher Activity Survey-Transition* instrument. Data were analyzed according to gender, number of years teaching, professional role, highest degree obtained, setting, classroom setting, grade levels, and state. Results showed the largest representation of participants in the study were teachers who taught in a self-contained classroom. Most of the teachers taught students with Emotional Disturbance ($n = 29$) followed by students with Intellectual Disability ($n = 28$) and/or Autism Spectrum Disorder ($n = 25$). However, all 13 of the IDEA disability categories were represented. Seventeen percent of the 50 states were represented, with the largest population of participants coming from Virginia ($n = 12$). Overall, a majority of the teachers had over 10 years of teaching

experience. Participant characteristic results are displayed in Table 2. Frequencies and percentages were calculated to determine these demographic characteristics.

Table 2

Demographic Data

Characteristic	Frequency	Percentage
Gender		
Female	34	91.8
Male	3	8.1
Years Teaching		
1-5 years	6	16.2
6-10 years	7	18.9
10+ years	24	64.8
Professional Role		
Special Educator (grades 6-12)	26	70.2
Transition Coordinator	8	21.6
Job Coach	3	8.1
Highest Degree		
Bachelor's Degree	4	10.8
Master's Degree	27	72.9
Doctoral Degree	4	10.8
Professional Certification in Transition	4	10.8
Setting		
Rural	13	35.1
Suburban	15	40.5
Urban	9	24.3
Classroom Setting		
Inclusion in the General Education Classroom	7	18.9
Self-Contained Special Education Classroom	15	40.5
Resource Classroom	5	13.5
Consulting Services	10	27.0

The data in Table 2 revealed that a majority of the participants were female (91.8%) had 10 or more years of teaching experience (64.8%) and were secondary special educators in grades 6-12 (70.2% The majority of participants (n = 27) received a Master's degree, and many (40.5%) of the participants taught in self-contained special education classrooms, where students are taught a majority of the day. About a quarter of participants (25.6%) reported providing transition specific consulting services in the general education classroom. Finally, many teachers

reported that they taught across grade levels with eight teachers reporting teaching across grades 6-12; three reporting grades six through eight; and 15 reporting grades nine through 12. Others reported providing services to "post graduates" or teaching in just 6th, or 12th grades (31.7%). Finally, 37 participants completed the demographic information, not all completed all sections of the survey; therefore, missing data was accounted for and were not used in analyses.

Description of Professional Development Activity

Table 3 displays participant responses regarding the professional development activity in which they participated. Data were analyzed using frequencies and percentages. Results indicated that on average, participants accessed about six professional development activities related to transition (M = 5.74; SD = 6.41; Range 0-25). Participants spent an average of 18.24 hours engaging in transition professional development activities (SD = 13.18, Range 0-40). Approximately 11 participants have reported the activity is still continuing, while 25 reported it has ended; Two did not answer this specific question; yet participated in other parts of the survey. Out of the respondents, 30 (83.3%) reported having shared what they learned with other teachers in their school or department and 26 have shared with their administration (72.2%). Approximately half of the participants (n = 20, 54.3%) have communicated with other participants in the professional development activity, whereas 45.7% (n = 17) have not. Lastly, 22 of the participants (59.5%) reported being able to apply what they learned, whereas 15 reported they did not (40.5%). Most of the participants attended in-person professional development activities that lasted more than a month (n = 22; 62.9%). This is consistent with the findings if the participants were taking traditional college courses. However, the second highest rating for period of time of professional was one day (n = 9), most likely indicating a one-day workshop or in-service. Further, most of the professional development occurred during the

school year with about a third of participants reporting having received professional development before and after as well. Finally, most professional development activities were assessed through the use of a survey versus observations or interviews.

Table 3

Description of Activities

Category	Frequency	Percentage
Format of Professional Development		
In Person (face-to-face)	22	62.9
Online	5	14.3
Hybrid (face-to-face and online)	8	22.9
Period of time of Professional Development		
Less than one day	3	8.1
One day	9	24.3
Two to Four days	8	21.6
A week	1	2.7
A month	2	5.4
More than a month	11	29.7
Occurrence of Professional Development		
Before the Academic School Year	11	30.6
During the Academic School Year	32	88.9
After the Academic School Year	10	27.8
Evaluation of Activity		
Completed a Survey	25	67.6
Interviewed	3	8.1
Observed by an Evaluator	--	--
Classroom Observed	1	2.7
Student Outcomes Evaluated	4	10.8
No Evaluation took Place	9	24.3
Final Project	2	5.4

Focus of Professional Development Activities. This section describes the focus of the professional development activity in Table 4 below and Table 5 reports on the amount of emphasis placed on each of the transition specific evidence-based practices. The means and standard deviations were reported for each of evidence-based transition practices.

The results in Table 4 indicated that a majority of the professional development provided a minor to major emphasis on evidence-based transition practices. The three lowest rated categories were

teaching students leisure skills (*M* = 1.69, *SD* = .668), teaching student's academic skills (*M* = 1.92, *SD* = .722), and strategies for including families in the transition process (*M* = 1.97, *SD* = .763). Collaboration was the highest rated category (*M* = 2.42, *SD* = .732) indicating a strong focus on working with various stakeholders when providing transition services to students with disabilities.

Table 4

Focus of Professional Development on Evidence Based Transition Practices

Evidence-Based Transition Practice	*n*	*M*	*SD*
Development of IEP transition goals and objectives	37	2.51	.692
Student involvement in IEP meetings	37	2.41	.725
Teaching student's functional life skills	37	2.14	.713
Teaching students' job-specific employment skills	37	2.38	.681
Teaching students' functional academic skills	35	2.09	.658
Teaching student's leisure skills	36	1.69	.668
Teaching student's communication skills	35	2.03	.707
Teaching parents and families about transition	37	2.19	.739
Providing community-based instruction	37	2.24	.796
Collaboration with stakeholders (parents, students, etc.)	36	2.42	.732
Strategies for including family in the transition process	37	1.97	.763
Providing a program focused on individuals needs	37	2.30	.777
Understand the IDEA requirements for transition	37	2.24	.796
Implement the use of evidence-based practices for transition	37	2.35	.716
Utilizing formative and data driven evidence to make decisions	36	2.39	.728
Teaching students' academic skills	37	1.92	.722
Evaluating a transition program yearly for development and improvement	36	2.00	.793

Note. Scale was 1-3 with 1 = No Emphasis, 2 = Minor Emphasis, and 3 = Major Emphasis. *n* = number of participants, *M* = Mean, and *SD* = Standard Deviation.

The results in Table 5 indicated that much of the professional development activities participants attended were consistent with their own goals for professional development (n = 37, *M* = 3.89, *SD* = 1.24) consistent with other findings which stated teachers attended the professional development based on the content that was delivered. Closely rated to that was that the professional development was designed to support federal, state, or district policies, standards/curriculum, frameworks (*n* = 37, *M* = 3.84, *SD* = 1.21). Yet, the lowest rated category

for focus area of professional development was that it was designed to support state or district assessments (n = 37, *M* = 3.11, *SD* = 1.33). This is interesting in that policies mandate that students with disabilities receive transition services, yet much of the transition curriculum is thought to be functional and not academic; whereas typically the state and district assessment are primarily based on academic content.

Table 5

Focus Area of Professional Development

Area	*n*	*M*	*SD*
Consistent with your own goals for professional development	37	3.89	1.24
Based explicitly on what you had learned in earlier professional development experiences or teacher preparation program	37	3.30	1.24
Followed up with activities that built upon what was learned in other professional development activities	37	3.27	1.41
Designed to support federal, state, or district policies, standards/curriculum frameworks	37	3.84	1.21
Designed to support state or district assessments	37	3.11	1.33

Note. Scale was 1-5 with 1 = Not At All, 2 = To a Small Extent, 3 = To Some Extent, 4 = To a Moderate Extent, 5 = To a Great Extent. *n* = number of participants, *M* = Mean, and *SD* = Standard Deviation.

Teacher Sense of Self-Efficacy

Participants were asked to rate their degree of confidence to perform the evidence-based transition practices using a scale of one through five. Means and standard deviations were calculated for the different evidence-based transition practice domains based on teacher effectiveness and are presented in table 6. Sub-scales were also created using the Kohler (2016) framework, in which evidence-based practices were grouped. A reliability analysis was carried out for each subscale to measure internal consistency (i.e. how closely related a set of items are as a group) and reported acceptable ($0.7 \leq \alpha < 0.8$), good $0.8 \leq \alpha < 0.9$) and excellent ($0.9 \leq \alpha$) reliability in each area. Cronbach's Alpha for each subscale was: student-focused planning (α = .715); student development (α = .927); family engagement (α = .775); program structure (α =

.903); and total perceived effectiveness (α = .957). Teacher perceived effectiveness was measured using the results of the survey and grouping the variables into one measurable variable to get an effectiveness score for each participant. The total self-efficacy score of participants in table 6 is the group mean and standard deviation for all participants.

Table 6

Teacher Sense of Self Efficacy

Evidence-Based Transition Practice	*M*	*SD*
Student Focused Planning	**4.32**	**.75**
Develop IEP goals and objectives	4.50	.893
Provide a program focused on individuals needs	4.26	8.91
Involve students in IEP meetings	4.18	1.06
Student Development	**4.21**	**.79**
Teach students functional life skills	4.39	.916
Teach students self-determination skills	4.39	.823
Teach students functional academic skills	4.37	.883
Teach students job-specific employment skills	4.29	.956
Teach students leisure skills	4.13	1.02
Provide social skills training	4.11	1.03
Teach students communication skills	4.08	1.024
Teach students academic skills	4	1.05
Program Structure	**4.07**	**.84**
Understand the IDEA requirements for transition	4.42	.79
Provide community-based instruction	4.13	1.14
Evaluate the transition program for development and improvement	4.05	1.11
Utilize formative and data driven evidence to make decisions	3.95	.94
Understand different models of transition programs and practices	3.92	.941
Implement the use of evidence-based practices	3.92	1.08
Family Engagement	**4.14**	**.86**
Teach parents and families about transition	4.16	1.00
Know and use strategies to include the family in the transition process	4.13	.91
Interagency Collaboration		
Work with students, parents, educators, service providers, community agencies, post-secondary schools, employers and/or other stakeholders	**4.47**	**.98**
Total Self Efficacy Score of Participants	**4.19**	**.73**

Note. Scale was 1-5 with 1 = I cannot do at all to 5 = I definitely can do. *M* = Mean, and *SD* = Standard Deviation.

Perceived Effectiveness of Professional Development

When asked if teachers have attempted to make changes in their teaching because of participation in professional development activities, a majority of the teachers marked yes ($n = 34$, 89.4%). Table 7 depicts the frequency of use of new skills in the teachers' classroom. While many teachers reported not being to apply what they learned in the professional development, a few ($n = 15$; 40.5%) reported meeting informally with other participants of the professional development to discuss what was learned and how to implement it into the classroom. Yet, no teachers reported their teaching being observed by other participants, and only four reported being observed by activity leaders and being provided feedback (10.8%).

Table 7

Teachers Use of New Skills in Classroom

	Frequency	Percentage
Practiced under simulated conditions, with feedback	4	10.8
Received coaching or mentoring in the classroom	4	10.8
Met formally with other activity participants to discuss classroom implementation	5	13.5
My teaching was observed by activity leader(s) and feedback was provided	4	10.8
My teaching was observed by other participants and feedback was provided	0	0
Communicated with the leader(s) of the activity concerning classroom implementation	11	29.7
My students' transition-specific work was reviewed by participants or the activity leader	8	21.6
Met informally with other participants to discuss classroom implementation	15	40.5
Developed curricula or lesson plans, which other participants or the activity leader reviewed	8	21.6
No follow up was provided	13	35.1

Teachers rated the extent to which they made a change in their teaching practice as a result of the professional development activity using a scale of one through four. Means and standard

deviations were calculated for the different categories and presented in Table 8. The Cronbach alpha for this section of the assessment was excellent as well (α = .961). The highest area in which participants rated the extent to which change was made was in the way the participants thought of transition outcomes for their students (*M* = 3.21, *SD* = .905). The lowest rated category was the approaches the teachers take to teaching academic skills (*M* = 2.50, *SD* = .923). These findings are interesting, as earlier it was discussed that the least amount of professional development activities were based on district or state assessments, and in the teacher efficacy section, the lowest rated score for teacher self-efficacy in student development was teaching students academic skills (*M* = 4, *SD* =1.05), and that one of the lowest rated categories in the focus of the professional development was teaching students academic skills (*n* = 37, *M* = 1.92, *SD* = .722).

Table 8

Extent to Which Change was Made

	M	*SD*
Students IEP goals and objectives	3.05	.868
The types of transition specific activities	3.03	.854
The types of assessments that are used to track progress	2.92	.969
The ways I include the student in the development of their program	3.16	.945
The way families and other stakeholders are included	2.79	.935
The way I think of transition outcomes for my students	3.21	.905
The approaches I take to teaching academic skills	2.50	.923
The approaches I take to teaching functional skills	2.73	1.01
The ways I collaborate and work with related service providers	2.84	.973
The way I teach employment and job-related skills	2.76	1.03

Note. Scale was 1-4 with 1 = No Change to 4 = Significant Change. *M* = Mean, and *SD* = Standard Deviation.

Findings Related to Research Questions

This section presents results of analyses addressing the four research questions. Data were collected from the *Teacher Activity Survey-Transition* instrument to answer each of the following research questions. In an effort to determine the relationship between teachers' level or perceived effectiveness surrounding transition and the types of professional development training

received. As indicated in Table 6, teachers felt as though they could "do quite a bit" when implementing the evidence-based transition practices (M = 4.19, SD = .73). Teachers scored lowest in program structure (M = 4.07, SD = .84) and highest in interagency collaboration (M = 4.47, SD = .98).

General Research Question. What types of professional development activities do secondary special educators' access to improve their knowledge and skills relevant to delivering evidence-based transition practices for students with disabilities?

The types of professional development activities teachers accessed are presented in Figure 3. Most of the participants participated in college courses followed by in- or out-of-district workshops.

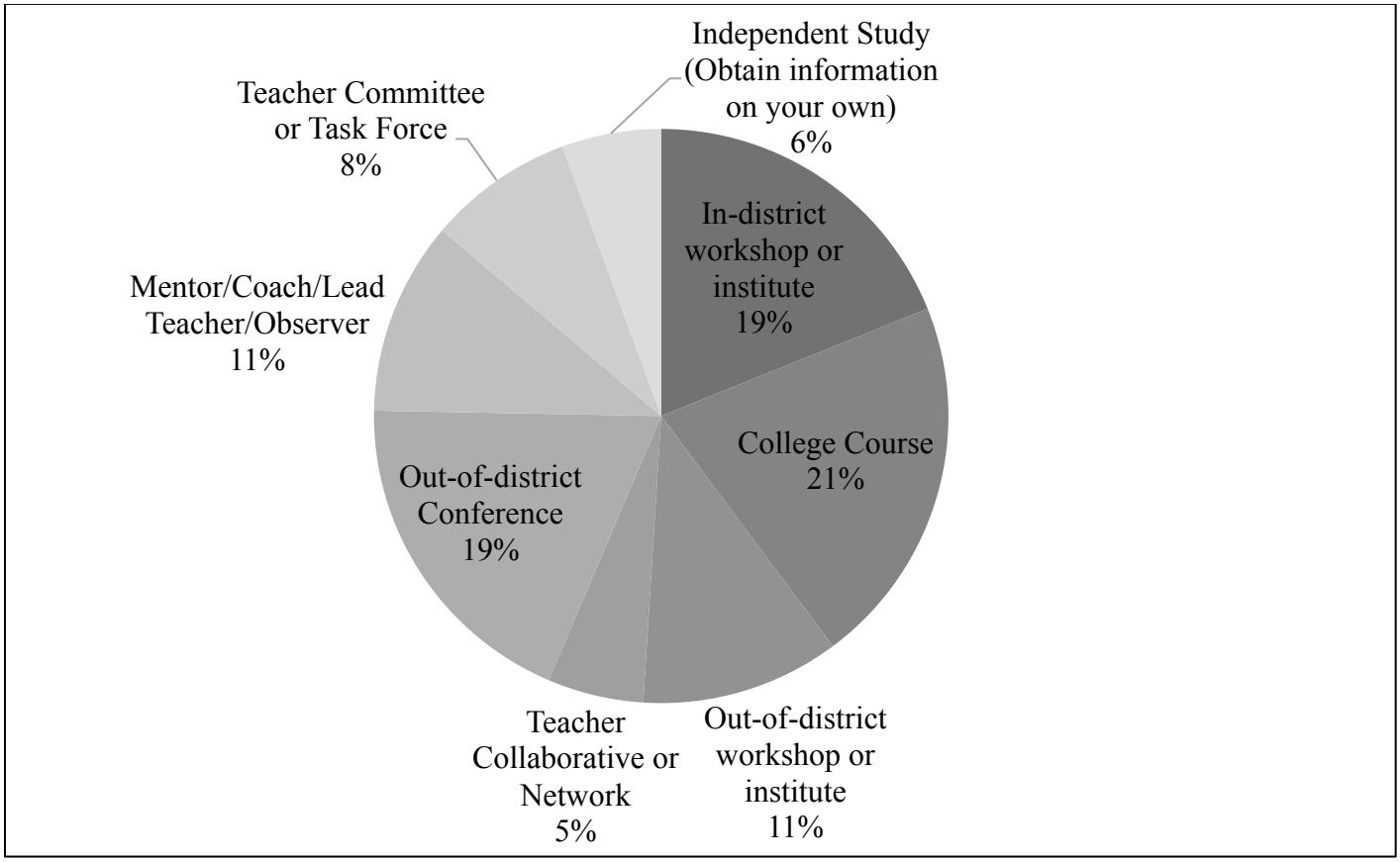

Figure 3. Percentages of types of professional development that were received.

Table 9 presents data on types of activities participated in during the professional development and identified that most teachers listened to a lecture (n = 27, 75%), and/or participated in whole-group or small group discussions (n = 25, 69.4%). The types of professional development activities receiving the lowest engagement scores were networking with peers (n = 1, 2.8%) leading whole (n = 5, 13.9%) or small group (n = 7, 19.4%) discussions and demonstrating a lesson (n = 7, 19.4%). Teachers were allowed to select multiple activities in which they engaged in, so most participants selected more than one option indicating a variety of activities throughout the professional development.

Table 9

Types of Professional Development Activities

	Frequency	Percentage
Listened to a Lecture	27	75
Small-Group Discussion	25	69.4
Whole-Group Discussion	24	66.7
Reviewed Students IEPs/Work	19	52.8
Gave a Lecture	16	44.4
Collaboration with Colleagues	16	44.4
Developed or Reviewed Materials	14	38.9
Used Technology	14	38.9
Engaged in Extended Problem Solving	13	36.1
Observation	12	33.3
Practiced using Student Materials	11	30.6
Wrote a paper, report, or plan	9	25
Assessed Participants Knowledge/Skills	9	25
Scored Assessments	8	22.2
Demonstration Lesson	7	19.4
Led a Small-Group Discussion	7	19.4
Led a Whole-Group Discussion	5	13.9
Networked with Peers in the Same School	1	2.8

Frequency data and percentages are presented below in Figure 4 to represent why teachers attended these professional developments. Many of the teachers (n = 28; 77.8%) chose to attend the professional development activity based on the content provided. Only a few teachers reported

using it for continuing education and licensure renewal (n = 9, 25%) and only five reported they were required to attend (13.9%).

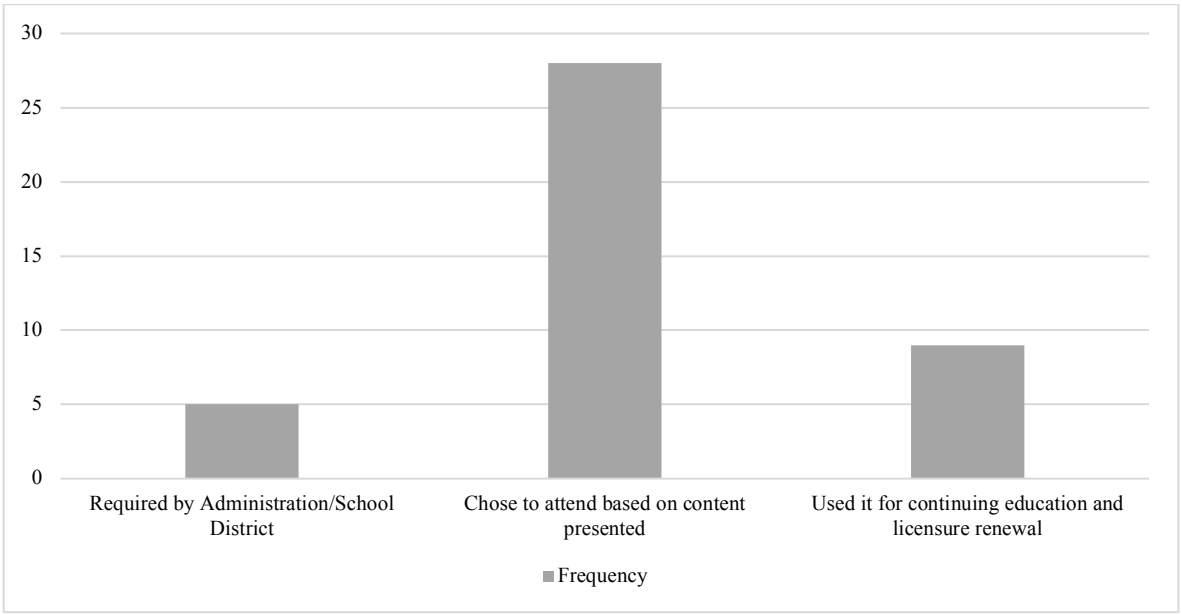

Figure 4. Frequency of reasons why participants attended professional development.

Research Question 1. Is there a relationship between the level of perceived self-efficacy regarding transition and the types of professional development training received?

The hypothesis for this research question was that there is a positive relation between the level of perceived self-efficacy surrounding transition and types of professional development training that was received. The null-hypothesis stated there was no relation between perceived self-efficacy and type. Therefore, an ANOVA was conducted to determine the relationship between teachers' level of perceived self-efficacy and the types of professional development training they received. The independent variable was type of professional training received (i.e. participation in an in-district workshop, college course, out-of-district conference, internship, etc.). Results of a one-way ANOVA suggest that there was no significant relationship between the types of professional development received and teachers' perceived effectiveness, $F(7, 26) = .588$, $p = .759$, $\eta^2 = .14$. This suggests that the hypothesis, that there is a difference in level of

perceived self-efficacy and type of professional developments should be rejected with 99.9% confidence; indicating there is no relationship between type and self-efficacy.

Research Question 2. Is there a difference in the perceived self-efficacy related to the use of evidence-based transition practices and the amount of professional development among special education teachers?

The hypothesis for this research question was that there is a difference in the level of perceived self-efficacy related to the use of evidence-based transition practices and the amount of professional development among secondary special education teachers; whereas, the null hypothesis suggests no difference. Therefore, a one-way ANOVA was conducted to determine the difference between the amount of professional development and the mean scores of perceived self-efficacy. The independent variable was amount (i.e. how many and how long) of professional development received and the dependent variable was the self-efficacy effectiveness measure. Results of a one-way ANOVA suggest that there was a significant relationship between how many professional developments were received and teachers self-efficacy, $F(9, 23) = 2.39$, $p < .05$, $\eta^2 = .48$. This suggests that the hypothesis, there is a difference in level of perceived self-efficacy and how many professional developments are received can be retained with 99.9% confidence. Further, another one-way ANOVA was conducted to determine the difference between how many hours of professional development were offered and teacher effectiveness. Results of a one-way ANOVA suggest that there was a significant relationship between how many hours teachers were engaged in transition specific professional development activities and teachers effectiveness, $F(11, 23) = 2.92$, $p < .05$, $\eta^2 = .72$ This suggests that the hypothesis, that there is a difference in level of perceived self-efficacy and how many hours teachers receive professional development can be retained with 99.9% confidence.

Research Question 3. Is there a difference in the level of perceived self-efficacy regarding the use of evidence-based transition practices based on where teachers received professional development (online, face-to-face, hybrid; and in-district, out-of-district, conference).

The hypothesis for research question three was that there is a difference in the level of perceived self-efficacy regarding the use of evidence-based transition practices based on where teachers receive; whereas the null hypothesis suggests no difference. To determine the difference between the type of professional development and the mean scores of teachers perceived self-efficacy a one-way ANOVA was conducted. The independent variable was where teachers received professional development and the dependent variable was the effectiveness measure. Results of a one-way ANOVA suggest that there was not a significant relationship between where professional developments were received and teachers effectiveness, $F(2, 30) = 1.221$, $p = .309$, $\eta^2 = 13$. This suggests that the hypothesis, that there is a difference in level perceived self-efficacy and type of professional developments can be rejected with 99.9% confidence; indicating the null hypothesis is true. A post-hoc analysis was conducted to further examine difference between specific groups and found that there were no significant differences.

Research Question 4. Does type of professional development, amount of professional development, and where teachers receive professional development collectively better predict self-efficacy for secondary teachers than one single variable alone?

A multiple linear regression was conducted to determine if the independent variables amount, type, and location of professional development collectively predict higher perceived self-efficacy for secondary special educations. The population model that was used was

$$y = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + \varepsilon$$

Where y is the outcome, x_1, x_2, x_3, are the values for each predictor, and b_0 is the y-intercept (effectiveness);. b_1, b_2, b_3, are the partial regression coefficients as they estimated after controlling for the other predictors in the model.

Results suggest that there is a positive and significant ($t = 2.93$, $p < .05$, $n = 37$) relationship between the amount of professional development received and the teachers perceived effectiveness score, after controlling for the type of professional development and the location of the professional development. This suggests that the null hypothesis should be rejected. The model indicated a non-significant relationship between the type of professional development ($t = .336$, $p = .727$, $n = 37$) and teachers perceived effectiveness score after controlling for the amount and location of professional development. There was also a non-significant relationship between the location of the professional development ($t = -.804$, $p = .429$, $n = 37$) and teacher effectiveness score after controlling for the amount and type of professional development received. Finally, the average teacher effectiveness score is 4.12 out of 5 when teachers receive no professional development indicating they feel they can do quite a bit when implementing evidence-based transition practices. This model corresponds to an Adjusted R square value of .168, with one significant predictor being Amount. This one predictor explained 16.8% of the variance of the data. The strongest predictor was Amount ($\beta = .501$), followed by Type ($\beta = .063$), and Location ($\beta = -.140$) (see table 10). Further, the F-value of 2.958 ($p < .05$) suggests that the model has some significant predictive power when compared to the sample mean. It is most likely that the predictive power comes from the amount of professional development variable.

Table 10

Multiple Regression

Variables	*B*	*SE B*	β	*t*	*p*
Effectiveness (Constant)	4.120	.281		14.678	.000
Type	.015	.042	.063	.366	.717
Location	-.112	.140	-.140	-.804	.429
Amount	.049	.017	.501	2.934	.007

Note. B = unstandardized beta; *SE B* = standard error for the unstandardized beta; β = the standardized beta, *t* = the t test statistic, and *p* = the probability value.

Summary

In summary, results from this study indicate that the amount of professional development had the greatest influence in teachers perceived effectiveness to deliver evidence-based transition practices to students with disabilities. Overall, teachers' ratings of effectiveness indicated they felt they could "do quite a bit" when delivering evidence-based transition practices, with the lowest score being a 2.40, feeling they could do very little, and the maximum being 5, indicating they could definitely implement the evidence-based transition practices. Amount of professional development received was a significant predictor for teacher perceived self-efficacy, whereas type and location of professional development did not have a significant impact even when controlling for other variables. Results suggested the participants in this study selected the best type of professional development was a college course they took versus in-district, or out-of-district conferences or workshops. Results indicated that the hypothesis for research question 1 was not supported; there is no relation between the level of perceived self-efficacy and the type of professional development received. The hypothesis for research question 2 was supported indicating there was a relationship between the amount of professional development, and perceived self-efficacy. The hypothesis for research question 3 was not supported, indicating there is no difference on where teachers receive professional development and their perceived self-efficacy. Finally, the hypothesis that amount, type, and location collectively better predict

perceived self-efficacy was not supporting, and that amount was the only predictor found in this sample.

Chapter 5

Discussion

The purpose of this study was to determine how transition specific professional development influenced special educators' knowledge and perceived self-efficacy regarding the use of evidence-based transition practices. The literature review suggested that secondary special educators enter the profession with limited knowledge and skills to provide effective evidence-based transition practices to students with disabilities (Benitez & Morningstar, 2009; Henry, 2015; Jacobs, 2017). Therefore, based on the perceived effectiveness of professional development, this study identified how different variables related to professional development can influence teacher self-efficacy in terms of delivering evidence-based transition practices. Factors that were primarily investigated include the amount of professional development teacher received, the type of professional development, and the location of professional development. Chapter five will provide a summary of results, discussion of the findings and their implications, limitations, and recommendations for future research and practice.

Summary of Results

Demographics of Participants. As expected, the majority of the participants were female, reflecting national trends in education with females representing 87% of special educators (U.S. DOE, 2016). Most of the participants (54%) taught in a self-contained classroom whereas, consulting services frequencies matched with those who identified as transition

coordinators, or job coaches. As indicated, 74% of the participants held a master's degree, and taught in a suburban setting.

Professional Development. The literature addressed what constituted effective professional development. Across all participants, the mean amount of time participants engaged in professional development was 18.24 hours, with the maximum being 40 hours. While there is limited research on the number of hours a teacher needs to qualify it as "effective professional development", research does indicate that effective professional development is sustained, ongoing, intensive, and supported by modeling, coaching, and collective solving of problems and practice (Darling-Hammond & McLaughlin, 2011; Desimone, 2009; Garet et al., 2001). However, almost half (n = 17) of the participants collectively indicated that their professional development took place over one day or two-four days (46%), with 22% indicated their professional development lasted over a month (n = 11). Leko and Brownell, (2009) suggest that professional development must be continuous or include follow-up, yet 70% (n = 25) of participants noted the activity is no longer continuing. Follow-up after the professional development is critical to be effective (Garet et al., 1999); however a majority of the teachers reported no follow up was provided and/or the type of follow-up included discussing with participants informally after the professional development; only four participants received feedback or were observed after the initial professional development occurred, which is not as effective as continuous professional development (Lundeberg, Kohler, & Eberhardt, 2011). This suggests that school systems need to do a better job of providing on-going professional development opportunities focused on transition and giving teachers opportunities to receive feedback on their instruction.

College course was considered a type of professional development, 20.9% (n = 8) of participants indicated that they participated in this type of PD. Only six participants indicated they did not engage in professional development or that it was less than a day. Most of the professional development was received during the academic school year (n = 32). While the literature suggests modeling, coaching, and collaboration as effective practices and applicable to the classroom; yet, many participants reported only listening to a lecture. 40.5% (n = 15) of teachers reported not being able to apply what they learned or obtain feedback/guidance after the professional development. While the findings suggest teachers perceived they can do "quite a bit" to deliver evidence-based transition practices, it seemed as though the professional development did not give them opportunities to apply what they learned. Therefore, their perceived knowledge may have increased, but the application and practice of delivering evidence-based practices may be different. While these findings are concerning, as one aspect of effective professional development is having teachers practice strategies through role play, use actual assessment data, and develop lesson plans (Leko & Brownell, 2009), yet only a few teachers stated they actually participated in those types of activities. Contrary to the literature which suggests that a mentor is an effective method of professional development, findings suggest that those who reported "mentor" (i.e. coaching, being led by an expert teacher, etc.) as their professional activity scored lowest on effectiveness (M = 4.79, SD = .43). Yet, those who sought out resources on their own and were independent reported the highest perceived effectiveness (M = 4.95). This could be related to an individual's internal motivation for life-long learning and desire to learn and grow more within an organization. This also supports the literature in that teachers learn more from professional development opportunities when they feel connected to the content (Desimone, 2009).

Dependent Variables

Teacher Perceived Effectiveness. Across all participants, and items, mean ratings revealed that special educators felt they could "do quite a bit" to deliver evidence-based transition practices to students with disabilities ($M = 4.19$). Mean scores were consistent across the varying transition domains (student focused planning, student development, program structure, family engagement, and interagency collaboration), participants scored the highest in interagency collaboration ($M = 4.47$) and lowest in program structure ($M = 4.07$). This is contrary to the literature as prior research indicated that teachers were unprepared to deliver evidence-based transition practices (Benitez & Morningstar, 2009). These findings suggest teachers feel confident in the ways they deliver evidence-based practices. Based on the literature surrounding teacher self-efficacy and teacher effectiveness, it seems as though teachers do feel confident to use research-based practices and implement instruction to enhance student performance (Becenti, 2009). Yet, as it is understood in the literature, as teacher knowledge increases, their perceived self-efficacy increases as well (Swackhamer et al., 2009). Based on the framework by Desimone (2009), it seemed as though only one of the core features of professional development (i.e. duration) had a significant influence on teacher's perceived effectiveness versus the other areas including content, active learning, coherence, and collective participation. The findings suggest teachers were able to make some change to their use of evidence-based practice. Therefore, based on Desimone's framework for effective professional development; it could lead to increased teacher knowledge, and skills, followed by change in instruction and improved student learning. While change in instruction was not necessarily measured and improved student learning was not measured, one could assume that dependent on

the context of the professional development and teachers' perceived effectiveness, teachers' knowledge and skills increased as a part of participation in the professional development.

Teaching Practices. Respondents participated in this survey after engaging in professional development activities; while, 15 participants said they could not apply what they have learned, 90% (n = 34) of participants indicated they did introduce change in their classroom after participating in professional development activities. A majority of the participants reported making moderate to significant changes across the varying domains of transition. These largest areas of change involved including students in the IEP process, the ways in which they think about transition outcomes, and the types of transition specific activities which are used. These changes were primarily made to something the teachers may have already been doing (i.e. writing IEPs) which could be due to the fact that teachers felt they had control over these areas. However, the area where the least amount of change was made was in the approaches the teachers took to teaching students academic skills, functional skills, and employment related skills. As transition involves many stakeholders, teachers may not have felt they had as much control over these areas, as it may involve a general educator, job coach, and/or other related personnel. Also, with recent changes in special education, a majority of teachers having over 10+ years of experience, they may not be willing to change to academic instruction and therefore need more information focused on teaching students with disabilities academic skills too.

While this may indicate that, in the area of transition, teachers felt they were able to make changes after receiving the professional development in the areas in which they had control over. Further, these findings are consistent with the literature as studies have shown, that when teachers receive specific instruction in one area, they are more likely to make changes in their classrooms (Penuel, Fishman, Yamaguchi, & Gallagher, 2007; Yoon et al., 2007). Based on the

amount of change the teachers made and the focus area of the professional development that was attended; there may have been an impact to their perceived effectiveness to implement certain evidence-based transition practices. These changes could be a result of participating in other professional development activities, based on identifying the information on their own, and/or developed over time from experience, and feedback in which teachers may not have deemed as professional development. This would be important to further investigate as some participants noted not making any change to their practice; but identified change was made in their classroom.

Supplemental correlation analyses were conducted to analyze teacher perceived effectiveness compared to the degree of change. Based on results from a bivariate correlation analysis to examine the associations between effectiveness and change, the two were significantly and positively correlated with one-another ($r = .513$, $p < .01$). Therefore, one could consider that the changes made after receiving professional development training were related to teacher effectiveness to provide the evidence-based transition practices. This is evidenced by the fact that when analyzing the correlation between the emphasis of the professional developments versus change, there was also a significant positive correlation ($r = .594$, $p < .01$), indicating that when more emphasis was given, more change was likely to be made. This is consistent with the literature indicating the content-specific instruction (Leko & Brownell, 2009) is effective in professional development. Further, with many participants reporting multiple forms of professional development activities, some of which was sought out on their own, it is logical that they were more likely to make changes in their practice (Garet, Desimone, Birman, & Yoon, 2001).

In summary, the overall findings of the research questions are that if teachers received professional development, they were more likely to make changes in their classroom that in turn affected their effectiveness to deliver the evidence-based transition practices to students with disabilities and therefore had higher rates of self-efficacy (Bray-Clark & Bates, 2003; Campbell et al., 2003). While there were no significant findings based on location, and type of professional development, the amount of professional development received was significant. The non-significant results could be due to a small sample size, and the limited option to only select one professional development versus more. These findings could also potentially be due to the fact that the teachers who had more experience overall, would have had more opportunities for professional development, and therefore, felt more effective to deliver evidence-based transition practices.

Findings also suggested that more focused professional development opportunities had the most influence on change in their classrooms. However, it is concerning that the professional development activities that are considered in the literature, had the lowest scores. Therefore, it is evident that more follow-up, coaching/mentoring, and/or ongoing professional development opportunities need to be occurring. These results have several strong implications for future research, specifically investigating teachers practice in transition and the use of evidence-based practices versus their own perceived abilities to deliver the practices. It is evident based on the correlational analysis that teachers are able to make change and feel confident making changes in their classrooms after receiving professional development. However, simply providing one or two professional developments in this area is concerning. While teachers' scores for efficacy were on the higher end, this could be attributed to the fact that many of the teachers had more years of experience. When comparing means, those who had more than 10 years of teaching

experience had the highest rating for effectiveness ($M = 4.36$) compared to those who had one to five years of teaching experience ($M = 3.72$). Therefore, further investigation of pre-service and/or beginning in-service teachers would be important to investigate to better understand what areas need to be focused on specific to transition. As indicated in chapter four, there was a strong positive relationship between the number of professional development activities and teacher effectiveness; those who received more professional development had higher effectiveness ($r = .501$, $p < .01$). Therefore, it seems evident that when teachers are engaged in multiple effective professional development activities that provide a focus on transition, they are more likely to make changes to their instructional practices.

While this study sought to examine the relation between transition specific professional development and how it impacts secondary special educators' knowledge and self-efficacy surrounding the use of evidence-based transition practices; the findings suggested that teachers felt confident in their delivery of evidence-based transition practices and could effectively deliver these practices. However, the findings in this study are limited to the sample of participants and selected transition-based evidence-based practices.

Limitations

This study was based on self-reported data and had several limitations. These limitations should be considered when interpreting the data and findings. Some limitations include response rate, sampling, and self-report.

Response Rate. First, the response rate of those who opened (but may not have completed) the survey was low (15.8%). There could be many reasons for this low response rate, including the timing of when the survey was sent out. With the target participants being secondary special educators, and the survey being disseminated in late June, teachers may not be

actively checking their e-mail; indicating the low response to opening their e-mail and completing the survey. Multiple attempts were made to increase the number of participants, yet, the executive directors did not approve a follow-up e-mail. Therefore, the data was collected after one "blast email" was sent. This was not ideal as Lefever, Dal, and Matthiasdottir (2007) note, email messages announcing surveys could be viewed as "junk mail" or deleted without hesitation. This is also supported by the findings from Manfreda, Berzelak, Vehovar, Bosnjak, and Haas (2008) and Dillman (2014), indicating that web-based surveys typically have a lower number of responses due to overlooking the invitation whereas a paper-based survey serves a constant physical reminder that increases response rates. Yet, the response rate for the number of participants that opened and completed the survey was consistent with their findings, i.e. web-based surveys typically yielded a 15% less response rate than mail surveys. Yet, while the number of participants was low (n = 37), it was greater than the number of participants reported in the power analysis (n = 29). Nevertheless, this sample size is not representative of all secondary special educators (grades 6 – 12) and therefore the generalizability of these findings should be considered with caution. Additionally, participants only represented 17 of the 50 states in the United States.

Sampling. Additionally, participant selection may have been a limitation. Participants were not easily accessible by the researcher but instead were recruited through an outside organization which sent the e-mails on behalf of the researcher. Limiting it to one professional organization, in which the number of special educators enrolled in the organization is unknown, can be considered a limitation calculating the response rate of targeted participants as well. Participation in the study could have been skewed as membership in the organization meant these professionals valued improving their knowledge related to transition. However, participants

may have been reluctant to answer the survey as well if they did not receive professional development in transition and/or feel a strong sense of self-efficacy surrounding transition to complete the survey.

Response Bias. Consequently, another limitation, typical in studies of self-efficacy, was the reliance on self-reported data (Creswell, 2018). While, participants were asked to rate their level of confidence to provide evidence-based transition practices to students with disabilities, their answers may not reflect their true abilities to deliver these practices. Therefore, the self-report is susceptible to bias, and the credibility of the responses are a limitation. While teachers perceive they are confident in providing these evidence-based transition practices, there perceptions of their actual effectiveness may be skewed and therefore alter their responses. Further, the use of self-reported data can rarely be independently verified and therefore researchers must assume that people were answering honestly and truthfully. While self-report could impact the validity of the measure, the survey questions were designed to account for teachers' perceptions of their behaviors, not a direct judgment of the quality, which could skew responses positively. Therefore, the survey questions were designed as "I can" statements versus "I feel" to allow for behavior ratings versus judgement of quality.

Another limitation included the number of participants in the pilot study. With only three respondents, it was challenging to make conclusions that impacted the survey; yet, questions were added and streamlined to better answer the research questions. Also, participants were limited to reporting one professional development that best reflected their transition specific professional development. While it may be evident that teachers accessed more than one professional development that was focused on transition, participants were unable to report on those experiences. Another limitation could include a recency effect, with participants being

more likely to report the most recent professional development that would be freshest in their minds. Therefore, by only selecting one professional development activity, the result provides low reliability of teachers' actual experiences with transition specific professional development. In order to account for this in future research, it would be imperative to include a question of when they received the professional development.

Implications for Future Research

This study, which explored teachers' experiences of transition focused professional development and the impacts it had on their practice and self-efficacy, has several implications for future research. First, additional studies could further investigate the reasons for the non-significant findings of type and location of professional development, as past research has indicated this is as a predictor of effective professional development. Further investigations of teachers experience with types of professional development is critical, as it was a limitation that teachers were only limited to reporting on one type of professional development, evaluating additional professional development participation would be informative. By allowing teachers to account for all types of professional development, it could allow for the potential to determine which PD's are more effective and which teachers perceive to be most beneficial.

Many teachers reported a college course as their most effective type of professional development, yet, it would be interesting to investigate specifically what school systems and districts are doing to increase teachers transition competencies. However, if that is the best type of professional development teachers are receiving, further investigation into the types of college courses being offered would be critical to gain a better understanding of what aspects of transition are being focused upon. Further, with some teachers not being able to go back and take college courses, an investigation of what school systems and district are doing to increase

teachers' transition competencies would be imperative as well to better understand the ways the districts seek to improve teachers knowledge surrounding evidence-based transition practices to improve student outcomes.

Future research should also investigate the impact professional development has on student outcomes. While evidence-based practices and teacher perceived effectiveness in delivering these practices was being evaluated, it would be interesting to see which of these practices teachers use the most, and in what ways teachers see a change in their students' achievement. The use of a qualitative methodology (e.g. interviews) may provide a more in-depth and comprehensive understanding and exploration of the ways in which teachers are experiencing professional development. This methodology could provide a rich narrative explaining the reasons for change, their perceptions of their effectiveness, and experiences with professional development.

Interesting findings also included the relationships between variables including teacher perceived effectiveness and change made in their classrooms. Correlation analyses allowed for the strength and direction of these variables to be measured, which in turn can lead to research focused on the effects of professional development on teacher effectiveness. A study investigating teachers' perceived effectiveness before the receipt of transition focused professional development and after would be important to better understand the ways in which a specific type of professional development influenced teacher self-efficacy, and their abilities to deliver evidence-based transition practices. Further, identifying the types of professional development teachers find most valuable, and the areas of transition they are most interested in developing themselves could be important to investigate in the future. This type of study would be important, as it could involve the entire transition team and make a distinction between

evidence-based transition practices teaches have control over versus professional development needs of the entire transition team and allow a better understanding of the best ways to improve students' outcomes.

While many of the participants indicated they felt they could "do a quite a bit" to deliver these evidence-based transition practices, there was a significant difference in those who had more years of experience versus those who were in their first five years of teaching. This is supportive of the literature which states teachers are not being prepared in their teacher preparation programs to deliver these evidence-based transition practices. Therefore, investigating first-year second special educators transition knowledge and self-efficacy would be interesting to determine, over time how their efficacy may increase and what impacts this change over time.

The transition competencies that were selected were based upon the work of Test et al. (2009) and Kohler (2016) which identified evidence-based transition practices that predicted improved outcomes for students with disabilities. However, evaluating teachers' effectiveness to use the evidence-based practices and comparing that to teachers' self-efficacy in meeting the CEC Specialty Set of Standards for a Special Education Transition Specialist would be interesting to better understand how they not only use evidence-based practices but possess the background knowledge to be an effective secondary special educator.

Finally, due to the small sample size, consideration should be given to increasing the number of participants in future iterations of this survey in an effort to better understand the nature of transition specific professional development and perceived self-efficacy to deliver these practices, and the ways in which teachers are motivated to attend professional development opportunities.

Implications for Policy

While policy (IDEA, 2004) calls for teachers to provide transition services for students with disabilities, using evidence-based practices, students are still experiencing poor transition outcomes. Teachers' abilities to provide these services have been noted in the literature as not being able to provide these services to their students (Benitez & Morningstar, 2009; Henry, 2015; Jacobs, 2017). While we found that teachers felt they could deliver these evidence-based practices, teachers' knowledge needs to continuously increase and teachers need to be offered professional development opportunities. Therefore, there needs to be further exploration to what policy entails to increase the amount of professional development teachers are receiving. This includes assessing school systems to ensure they are providing effective professional development to teachers in their specific content areas. As stated in Every Student Succeeds Act (ESSA) of 2015, professional development is meant to be ongoing, intensive, collaborative, job-embedded, data-driven, and classroom focused. Therefore, regularly assessing that states are providing these opportunities to their teachers will be critical in ensuring teachers are receiving effective professional development opportunities. Further, after future research of the non-significant findings, directly identifying what variables need to be included in policy to further define professional development will be important.

While ESSA provides mandates for professional development for all teachers, the Individuals with Disabilities Education Act (IDEA) of 2004 still includes the language of "highly qualified" which the ESSA law no longer includes. Therefore, one of the requirements under IDEA 2004 is that teachers receive professional developments that are sustained, intensive, and classroom focused. Therefore, as the IDEA reauthorization is overdue, consideration should be given to the regulations surrounding more focused professional development to increase special

educators' quality to deliver evidence-based transition practices. This includes specifically investigating what professional development is needed for all transition stakeholders to improve transition outcomes for students with disabilities versus just teachers.

State and local policy makers could also consider school schedules that increase opportunities for teachers to access professional development. This includes professional working days that are dedicated to providing teachers feedback and engaging in professional activities that can improve student outcomes. Other strategies include increasing funding for teachers to go back to school, attend conferences, and/or receive training on evidence-based transition practices. By providing these services, they can develop knowledgeable and skilled practices to provide evidence-based practices to all students.

Implications for Practice

This study revealed that more experienced teachers seemed to have higher rates of effectiveness compared to those just beginning. Therefore, one of the implications for practice would be for the schools to assign expert teachers who can train, mentor, and/or coach teachers on effective ways to use evidence-based practices in their instruction. This type of effective ongoing professional development support may benefit novice teachers in schools. A model of effective professional developments that allow teachers to connect with research and evidence-based practices would be critical in giving teachers the tools needed to recognize and implement evidence-based practices. Finding a way for teachers to connect with professional organizations (i.e. DCDT) to offer more ways to connect with the transition stakeholders at conferences, through publications, and online to expand the professional development trainings for longer durations and build upon one another could increase teacher's knowledge and self-efficacy. More specifically targeting teacher's needs; as literature explains when teachers are interested in

professional development and it is meaningful to their practice they are more apt to make changes to their practice (Inge et al,. 2016; Kim & Morningstar, 2007). The majority of the teachers in this study reported the best professional development was based on their interest in the topic and were ones they chose to attend, versus mandated by their school district or administration. Therefore, another practical implication would be offering teachers choices or opportunities outside of the school district to receive professional development in their areas of interest and again, providing funding for them to attend those trainings. Lastly, partnerships with local universities would provide relationships and opportunities for collaboration among faculty and teachers to develop a way to connect the research and practice; and provide more access to college types of professional development, where were perceived as the best types of professional development from the participants in this study.

The future research and policy recommendations can provide more insight for recommendations in practice, but for now it is best to increase the amount of professional development teachers are receiving that are interest-based, focused, and on-going. Increased amounts of mentoring and coaching should to be provided to improve teachers practice, and critical feedback needs to be given.

Conclusion

This study was conducted based on the gaps in the literature identifying that teachers lack the competencies and knowledge needed to effectively deliver evidence-based transition practices. Where few studies have investigated the ways in which secondary special educators receive transition specific professional development the findings from this study identify that this population of secondary-special educators felt they could deliver evidence-based transition practices to students with disabilities. A majority of the participants received this instruction in a

college course that they were enrolled in, either as an elective (they chose to take) or as part of their college programming. It was also identified that after participating in professional development, teachers did make changes to their classrooms. Specifically, results indicated that the amount of professional development received had a significant effect on teachers 'perceived effectiveness compared to type, and location of the professional development. Using a self-report survey as data collection is a known limitation that was considered when making the research, political, and practical recommendations. Future research should further investigate special educators' involvement in professional development, policy should become more robust in defining professional development for special educators, and practical recommendations include increasing the amount of professional development and types of professional development special educators receive. While this study investigated perceived teacher effectiveness as it related to professional development future studies should consider looking at professional development as a means to further enhance teacher quality and increase student outcomes.

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Appendix A

Recruitment E-mail

Subject: You are invited to participate in a research survey

Hello,

You are being asked to participate in this study because you are a member of the Division on Career Development and Transition and show an interest in transition for students with disabilities. The purpose of this study is to explore the relation between transition specific professional development and the ways it may impact secondary special educators' knowledge and self-efficacy surrounding the use evidence-based transition practices. The information we learn from participants in this study may help us better understand how to help them learn how to be successful when providing transition services to students with disabilities to optimize transition outcomes.

We anticipate the survey should take 15 minutes to complete. The survey is confidential and your answers will not be linked to you as an individual. Your participation is voluntary and there are no risks associated with participating in this study. If you have any questions or comments, please contact Lauren Bruno (puglial@mymail.vcu.edu) or LaRon Scott (scottla2@vcu.edu).

https://goo.gl/forms/xtHuHGNwqcxrtR1d2

Thank you in advance for your consideration for participation,

Lauren Bruno & Dr. LaRon Scott
Department of Counseling and Special Education

Lauren Bruno, M.Ed., Special Education
Graduate Assistant and Doctoral Student
Virginia Commonwealth University
puglial@mymail.vcu.edu

LaRon A. Scott, Ed.D., B.C.S.E.
Assistant Professor of Special Education
Virginia Commonwealth University
(804) 828-6556
Scottla2@vcu.edu

Appendix B

Teacher Activity Survey: Transition

Survey Information
RESEARCH PARTICIPANT CONSENT INFORMATION FOR ONLINE SURVEY

STUDY TITLE: Professional Development and Transition
VCU INVESTIGATOR: Dr. LaRon Scott

ABOUT THIS CONSENT FORM
You are being asked to participate in this study because you are a member of the Division on Career Development and Transition and show an interest in transition for students with disabilities. It is important that you carefully think about whether being in this study is right for you and your situation.

This consent form is meant to assist you in thinking about whether or not you want to be in this study. Please ask the investigator or the study staff to explain any information in this consent document that is not clear to you. You may print a copy of this consent information to think about or discuss with family or friends before making your decision.

Your participation is voluntary. You may decide to not participate in this study. If you do participate, you may withdraw from the study at any time. Your decision not to take part or to withdraw will involve no penalty or loss of benefits to which you are otherwise entitled.

WHY IS THIS STUDY BEING DONE?
The purpose of this study is to explore the relation between transition specific professional development and the ways it may impact secondary special educators' knowledge and self-efficacy surrounding the use evidence-based transition practices. The information we learn from participants in this study may help us better understand how to help them learn how to be successful when providing transition services to students with disabilities to optimize transition outcomes.

WHAT WILL HAPPEN IF I PARTICIPATE IN THE STUDY?
If you agree to take this 20-minute survey, you will be asked questions about your involvement in transition specific professional development activities and how you have applied what you have learned to your classroom. Approximately 100 individuals will participate in this study.

WHAT ARE THE BENEFITS OF BEING IN THE STUDY?
This study will help the investigators understand how to help teachers learn how to be successful when providing transition services to students with disabilities to optimize transition outcomes.

WHAT RISKS AND DISCOMFORTS COULD I EXPERIENCE FROM BEING IN THE STUDY?
There are no risks associated with participating in this study.

HOW WILL INFORMATION ABOUT ME BE PROTECTED?
VCU and the VCU Health System have established secure research databases and computer systems to store information and to help with monitoring and oversight of research. Your information will be kept in these databases but are only accessible to individuals working on this study or authorized individuals who have access for specific research related tasks. The survey is confidential and your answers will not be linked to you as an individual. Although results of this research may be presented at meetings or in publications, identifiable personal information about participants will not be disclosed.
Personal information about you might be shared with or copied by authorized representatives from the following organizations for the purposes of managing, monitoring and overseeing this study:
• Representatives of VCU and the VCU Health System
• Officials of the Department of Health and Human Services

WHO SHOULD I CONTACT IF I HAVE QUESTIONS ABOUT THE STUDY?
If you have any questions, complaints, or concerns about your participation in this research, contact:

LaRon A. Scott, Ed.D., B.C.S.E. Lauren Bruno, M.Ed., Special Education
Assistant Professor of Special Education Graduate Assistant and Doctoral Student
Virginia Commonwealth University Virginia Commonwealth University
(804) 828-6556 puglial@mymail.vcu.edu
Scottla2@vcu.edu

The researcher/study staff named above is the best person(s) to call for questions about your participation in this study. If you have general questions about your rights as a participant in this or any other research, you may contact:
Virginia Commonwealth University Office of Research
800 East Leigh Street, Suite 3000
Box 980568
Richmond, VA 23298
Telephone: (804) 827-2157

Contact this number to ask general questions, to obtain information or offer input, and to express concerns or complaints about research. You may also call this number if you cannot reach the research team or if you wish to talk to someone else. General information about participation in research studies can also be found at http://www.research.vcu.edu/irb/volunteers.htm.

If you have any questions, please contact the study team before taking the survey.

STATEMENT OF CONSENT I have been provided with an opportunity to read this consent form carefully. All of the questions that I wish to raise concerning this study have been answered.

Do you consent to participate in this research survey?
Mark only one oval.

- Yes
- No

Teacher Activity Survey - Transition
The following survey is intended to gather data about the nature and effectiveness of professional development activities in which you participated. For all of the questions below please consider how they related to using evidence-based practices when providing transition services to students with disabilities. Thank you for taking the time to answer the following questions. As a reminder, your participation in this study is strictly voluntary. Should you not choose to complete this survey, it is your right to refuse to do so.

Demographics

Gender
Mark only one oval.

- Female
- Male
- Prefer not to say

How many years have you been teaching?
Mark only one oval.

- 1-5 years
- 6-10 years
- 10+ years

What is your current professional title for the 2017 - 2018 school year?
Mark only one oval.

- Special Educator (grades 6-12)
- Transition Coordinator
- Job Coach
- Other:

What is your highest degree obtained?
Mark only one oval.

- Bachelor's Degree
- Master's Degree
- Doctoral Degree
- Professional Certification in Transition
- Other:

In what type of setting is your school located? Select all that apply.

Check all that apply.

- Rural
- Suburban
- Urban

What type of disability category/categories do you teach?

Check all that apply.

	Autism	Deaf-blindness	Deafness	Emotional Disturbance	Hearing Impairment	Intellectual Disability	Multiple Disability	Orthopedic impairment	Other health impairment	Specific Learning Disability	Speech or Language Impairment	Traumatic Brain Injury	Visual Impairment, including
Select All that Apply													

In what setting do you primarily teach students with disabilities?

Mark only one oval.

- Inclusion in the General Education Classroom
- Self-Contained Special Education Classroom (where students are taught a majority of the day)
- Resource Classroom (for pull-out services)
- Consulting services (general education classroom, transition services, etc.)
- Other:

What grade level(s) do you currently teach? (Select all that apply)

Check all that apply.

- 6
- 7
- 8
- 9
- 10
- 11
- 12
- Other:

In which state do you currently work as a special education teacher?

Mark only one oval. (Drop Down Menu)

- AL
- AK
- AS
- AZ
- AR
- CA
- CO
- CT
- DE
- DC
- FL
- GA
- GU
- HI
- ID
- IL
- IN
- IA
- KS
- KY
- LA
- ME
- MD
- MH
- MA
- MI
- FM
- MN

- MS
- MO
- MT
- NE
- NV
- NH
- NJ
- NM
- NY
- NC
- ND
- MP
- OH
- OK
- OR
- PW
- PA
- PR
- RI
- SC
- SD
- TN
- TX
- UT
- VT
- VA
- VI
- WA
- WV
- WI
- WY

Description of Professional Development Activity

The following questions will ask you to describe your experiences with professional development activities in which you participated in over the past year and how it related to using evidence-based practices to provide transition services for students with disabilities. In answering the questions about the activities, please consider all components of the activities, even if they occurred at different times during the school year (For example, if the activity was a summer institute with a follow-up during the school year, include both the summer and the follow-up in your answers).

How many professional development activities focused on the use of evidence-based transition practices for students with disabilities have you participated in?

Have you you participated in DCDT specific professional developments and/or workshops?

Check all that apply.

- Nationally at the Annual Conference
- Regionally (Southeast, Southwest, Northeast, Northwest)
- Locally (State based)
- Online (i.e. webinars)
- Workshops
- Other:

Please select the professional development that BEST describes the type of activity that focused on improving your knowledge about the use of evidence based practices in transition? Choose only one response.

Mark only one oval.

- Participation in an in-district workshop or institute
- Attendance in a college course
- Attendance at an out-of-district workshop or institute
- Participation in a teacher collaborative or network
- Attendance at an out-district conference
- Working in an internship, or immersion activity
- Working with a mentor, coach, lead teacher, or observer
- Use of a teacher resource center
- Participation in a teacher committee or task force
- Participation in a teacher study group
- Other:

What format best describes that majority of how the professional development was delivered?

Mark only one oval.

- In person (face-to-face)
- Online
- Hybrid (face-to-face and online)

Please indicate why you attended the professional development specified above.

Check all that apply.

- Required by administration/school/district
- Chose to attend based on the content presented
- Used it for continuing education credits and licensure renewal

As part of the professional development activity focused on increasing your knowledge of using transition evidence based practices, including any preliminary and follow-up sessions, did you have the opportunity to try out what you learned in your classroom and obtain feedback or guidance?

Mark only one oval.

- Yes
- No

How did this professional development activity help you use new skills in your classroom? Check all that apply.

Check all that apply.

- Practiced under simulated conditions, with feedback
- Received coaching or mentoring in the classroom
- Met formally with other activity participants to discuss classroom implementation
- My teaching was observed by activity leader(s) and feedback was provided
- My teaching was observed by other participants and feedback was provided
- Communicated with the leader(s) of the activity concerning classroom implementation
- My students' transition-specific work was reviewed by participants or the activity leader
- Met informally with other participants to discuss classroom implementation
- Developed curricula or lesson plans, which other participants or the activity leader reviewed
- No follow up was provided
- Other:

Over what period of time was the activity spread, including the main activity and any formal preliminary or follow up sessions? Select one.

Mark only one oval.

- Less than one day
- One day
- Two-Four days
- A week
- A month
- More than a month
- Not Applicable

During what time periods did the professional development occur? Check all that apply below.

Check all that apply.

- Before the academic school year started

- During the academic school year
- After the academic school year

Approximately how many hours were you engaged in transition specific professional development activities?

Is the activity still continuing?

Mark only one oval.

- Yes
- No

How much emphasis did the activity give to each of the following areas?

Mark only one oval per row.

	No Emphasis	Minor Emphasis	Major Emphasis
Develop IEP transition goals and objectives			
Understand different models of transition programs and practices			
Student involvement in IEP meetings			
Teaching students functional life skills (i.e. purchasing, banking, cooking)			
Teaching students job-specific employment skills			
Teaching students functional academic skills (math and reading)			
Teaching students leisure skills			
Teaching students self-determination skills			
Social skills training			
Teaching students communication skills			
Teaching parents and families about transition			
Providing community-based instruction			
Collaboratively working with students, parents, educators, service providers, community agencies, postsecondary institutions, employers, and other stakeholders			
Strategies for including the family in the transition process (cultural background, family preferences, etc.)			
Providing a program that is focused on individual needs			
Understand the IDEA requirements for transition			

	No Emphasis	Minor Emphasis	Major Emphasis
Implement the use of evidence-based practices for transition			
Utilizing formative and data driven evidence to make decisions			
Teaching students academic skills (courses and curricula prepare students for college and careers)			
Evaluating a transition program yearly for development and improvement			

Which of the following characterize the participants in this activity? Check all that apply.

Check all that apply.

- Teachers as individuals
- Teachers as representatives of their department, grade level, or school
- All teachers in department or grade-level groupings
- All teachers in a school or set of schools
- Other:

Which of the following did you engage in during the professional development activity? Check all that apply.

Check all that apply.

- Listened to a lecture
- Observed a demonstration of a lesson or unit
- Participated in a whole-group discussion
- Participated in a small-group discussion
- Gave a lecture or presentation
- Conducted a demonstration of a lesson, unit, or skill
- Led a whole-group discussion
- Led a small-group discussion
- Engaged in extended problem solving
- Wrote a paper, report, or plan
- Practiced using student materials
- Developed or reviewed materials
- Reviewed student IEPs and work
- Scored assessments
- Collaborated as a colleague with transition experts
- Used technology (computers, internet, webinars, etc.)
- Assessed participants knowledge or skills
- Other:

Have you discussed or shared what you learned with other teachers in your school or department who did not attend the activity?

Mark only one oval.

- Yes
- No

Have you discussed or shared what you learned with school administrators (i.e. principal or department chair)?

Mark only one oval.

- Yes
- No

Outside of formal meetings held as part of the professional development activity, have you communicated with participants in the activity who teach in other schools?

Mark only one oval.

- Yes
- No

To what extent was the professional development activity:

Mark only one oval per row.

	Not At All	To a Small Extent	To Some Extent	To a Moderate Extent	To a Great Extent
Consistent with your own goals for your professional development					
Based explicitly on what you had learned in earlier professional development experiences or teacher preparation program					
Followed up with activities that built upon what you learned in other professional activities					
Designed to support federal, state, or district policies, standards/curriculum frameworks					

	Not At All	To a Small Extent	To Some Extent	To a Moderate Extent	To a Great Extent
Designed to support state or district assessments					

How was the activity evaluated? Check all that apply.

Check all that apply.

- Participants completed a survey
- Participants were interviewed to provide feedback
- The session was observed by an evaluator
- My classroom was observed
- Student outcomes in my classroom were evaluated
- No evaluation took place
- Other:

Effectiveness of Professional Development Activity

This following section is designed to help gain a better understanding of your level of confidence with the kinds of tasks that you need to do when providing evidence-based transition practices to students with disabilities. Indicate your opinion about your ability to perform the following the tasks.

Rate your degree of confidence to perform each of the following tasks below using the scale given:

Mark only one oval per row.

	I cannot do at all	I can do very little	I moderately can do	I can do quite a bit	I definitely can do
Develop IEP transition goals and objectives					
Understand different models of transition programs and practices					
Involve students in IEP meetings					
Teach students functional life skills (i.e. purchasing, banking, cooking)					
Teach students job-specific employment skills					

	I cannot do at all	I can do very little	I moderately can do	I can do quite a bit	I definitely can do
Teach students functional academic skills (math and reading)					
Teach students leisure skills					
Teach students self-determination skills					
Provide social skills training					
Teach students communication skills					
Teach parents and families about transition					
Provide community-based instruction					
I work with students, parents, educators, service providers, community agencies, postsecondary institutions, employers, and/or other stakeholders					
Know and use strategies for including the family in the transition process (cultural background, family preferences, etc.)					
Provide a program that is focused on individuals needs					

	I cannot do at all	I can do very little	I moderately can do	I can do quite a bit	I definitely can do
Understand the IDEA requirements for transition					
Implement the use of evidence-based practices for transition					
Utilize formative and data driven evidence to make decisions					
Teach students academic skills (courses and curricula prepare students for college and careers)					
Evaluate my transition program yearly for development and improvement					

Have you attempted to introduce changes in your teaching because of your participation in professional development activities?

Mark only one oval.

- Yes
- No

To what extent have you made each of the following changes in your teaching practice as a result of the professional development activity?

Mark only one oval per row.

	No Change	Minor Change	Moderate Change	Significant Change
Students IEPs goals and objectives				
The types of transition specific activities				
The types of assessments that are used to track progress				
The ways I include the student in the				

	No Change	Minor Change	Moderate Change	Significant Change
development of their program				
The way families and other stakeholders are included				
The way I think of transition outcomes for my students				
The approaches I take to teaching academic skills				
The approaches I take to teaching functional skills				
The ways I collaborate and work with related service providers				
The way I teach employment and job related skills				

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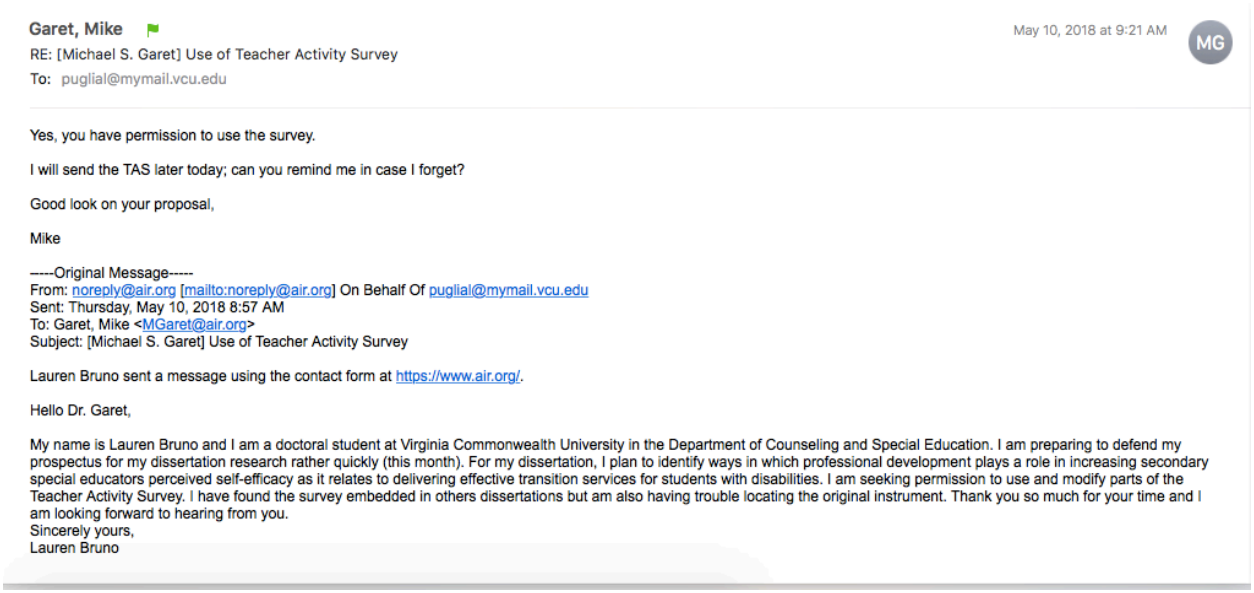
Appendix C

Permission E-mail to use Survey



Garet, Mike

May 10, 2018 at 9:21 AM

MG

RE: [Michael S. Garet] Use of Teacher Activity Survey

To: puglial@mymail.vcu.edu

Yes, you have permission to use the survey.

I will send the TAS later today; can you remind me in case I forget?

Good look on your proposal,

Mike

-----Original Message-----
From: noreply@air.org [mailto:noreply@air.org] On Behalf Of puglial@mymail.vcu.edu
Sent: Thursday, May 10, 2018 8:57 AM
To: Garet, Mike <MGaret@air.org>
Subject: [Michael S. Garet] Use of Teacher Activity Survey

Lauren Bruno sent a message using the contact form at https://www.air.org/.

Hello Dr. Garet,

My name is Lauren Bruno and I am a doctoral student at Virginia Commonwealth University in the Department of Counseling and Special Education. I am preparing to defend my prospectus for my dissertation research rather quickly (this month). For my dissertation, I plan to identify ways in which professional development plays a role in increasing secondary special educators perceived self-efficacy as it relates to delivering effective transition services for students with disabilities. I am seeking permission to use and modify parts of the Teacher Activity Survey. I have found the survey embedded in others dissertations but am also having trouble locating the original instrument. Thank you so much for your time and I am looking forward to hearing from you.
Sincerely yours,
Lauren Bruno

Vita

EDUCATION

August 2018	Ph.D.	Virginia Commonwealth University, Richmond, VA Special Education and Disability Policy Program Research to Policy Advocacy Grant
2015	M.Ed.	University of Mary Washington, Fredericksburg, VA Special Education with Autism Certificate Thesis: "Sex Education and Students with Disabilities"
2011	BSE	Millersville University of Pennsylvania, Millersville, PA Elementary Education and Special Education Dual Certification Program

LICENSURE AND CERTIFICATION

2015-current	Collaborative Institutional Training Initiative (CITI) Program Certified Human Subjects Research
2012-current	VA Teaching Certification, Elementary (K-6) and Special Education (K-12)
2011-2016	PA Teaching Certification, Elementary (K-6) and Special Education (K-12)

ACADEMIC APPOINTMENTS AND OTHER SIGNIFICANT WORK EXPERIENCE

2018	**Research Assistant.** Assisted and conducted research in special education, including data analysis and literature review for the Profile of Special Educator Study; Qualitative study on students with intellectual disability engagement in Extracurricular Activities (barriers and supports). IRB Submission of profile study, and local investigation of the implementation of ESSA in Virginia Schools. Drs. LaRon Scott and Colleen Thoma, Department of Counseling and Special Education, School of Education Virginia Commonwealth University, Richmond, VA.
2017	**Research Assistant.** Assisted and conducted research in special education, Survey development and dissemination of Profile of Special Educator Study, Literature Review: Profile of Special Educators (who is entering our field versus who is leaving the field), IRB Submission of Extracurricular Study,

Development of manuscripts focused on alternative licensure program, Re-evaluation of Virginias revised ESSA plan Drs. LaRon Scott and Colleen Thoma, Department of Counseling and Special Education, School of Education Virginia Commonwealth University, Richmond, VA.

2016 - 2017 **Research Assistant.** Literature review of lesson planning using the UDL AND UDT frameworks, Development and submission of an OSEP grant: Project Certifying Online Virginia Educators, Survey development for teacher preparedness study, Alternative and traditional special education teachers' perception of preparedness: Local and national descriptive studies, How teachers of students with ID are being taught to implement a UDL framework to provide access to the general education curriculum: A review of current personnel preparation practices. Dr. LaRon Scott, Department of Counseling and Special Education, Virginia Commonwealth University, Richmond, VA.

2015 - 2016 **Research Assistant.** Coded and analyzed qualitative interview data, Participation of students with special Needs in extracurricular activities. Dr. Colleen Thoma. Department of Special Education and Disability Policy, Virginia Commonwealth University, Richmond, VA.

2015 **Graduate Assistant.** Literature review on the effects of peer victimization on youth with disabilities, composition of tenure packet for faculty member. Dr. Chin-Chih Chen. Department of Special Education and Disability Policy, Virginia Commonwealth University, Richmond, VA.

SCHOLARSHIP

REFEREED PUBLICATIONS

Bruno, L., Scott L.A., & Willis, C. (in press). A national survey of alternative and traditional special education teachers' perception of preparedness. Submitted to Journal of the *International Association of Special Education.* .

Scott, L.A. & **Bruno, L**. (in press). Universal Design for Transition: A Conceptual Framework for Blending Academics and Transition Instruction. Submitted to *The Journal of Special Education Apprenticeship.*

Scott, L.A. & **Bruno, L**. (in press). Certifying online Virginia special educators: perceptions of an alternate route teacher preparation program. Submitted to *Journal of the National Association for Alternative Certification.*

Scott, L. A., Thoma, C. A., **Puglia, L**., Temple, P., & D'Aguilar, A. (2017). Implementing a UDL framework: A study of current personnel preparation practices. *Intellectual and Developmental Disabilities*, *55*(1), 25-36. Impact Factor: 1.625 Acceptance Rate: 10-20%

Scott, L.A., & **Bruno, L.P.** (accepted). Special education teachers' perceptions of linking academics with transition goals and the universal design for transition framework. *Journal of Vocational Rehabilitation.*

MANUSCRIPTS UNDER REVIEW

Cain, I., Agran, M., Thoma, C.A., Wojcik, A., **Bruno, L.P**, Achola, E., Nixon, C.A., Tamura, R., Austin, K.M. (under review). Multiple Perspectives: Parents' and Students' Views of Extracurricular Activities. Submitted to *Research and Practice for Persons with Severe Disabilities.*

Achola, E., Cain, I., Thoma, C.A., Wojcik, A., **Bruno, L.P**., Nixon, C.A., Agran, M., Ausitn, K.M. (under review). In their own words: How special education teachers experience participation in extracurricular activities for students with intellectual and developmental disabilities.

Scott, L.A., **Puglia, L**., Gotika, T., Thoma, C.A., (under review). Teacher candidates' ability to develop universal design for learning and universal design for transition lesson plans. Submitted to *Journal of Postsecondary Education and Disability*.

MANUSCRIPTS IN PREPARATION

Wojcik, A., D'Aguilar, A., Thoma. C. A., Cain, I., & **Puglia, L**. (in preparation). Applying Universal Design for Transition to Transportation: An Examination of Existing Support..

BOOKS/CHAPTERS

Thoma, C., **Bruno, L**., **D'Aguilar, A**., Pelt, R., & **Whittenburg, H.** (In press). Accessing the general curriculum within a functional-curriculum framework. In Wehman, P. & Kregel, J. (Eds.), *Functional curriculum for elementary and secondary students with special needs*. 137-158.

NON-REFEREED

Thoma, C.A., **Puglia, L**., Whittenburg, H., Pickover, G., & Ham, W. (2016). Biological ruptures and their repair: Cultural transitions in development. [Review of the book *Biological ruptures and their repair*, by A.C. Joerchel & G. Benetka]. *Teachers College Record*, 2016, http://www.tcrecord.org ID Number: 21026.

REFEREED PROFESSIONAL PRESENTATIONS

Bruno, L., Scott, L. Gnilka, P. Kozachuk, L., & Vitullo, V. (2018, June). Investigating the Profile of Special Educators: Who is Entering the Program and Who Leaves. Poster presented at the American Association on Intellectual and Developmental Disabilities, St. Louis, MO.

Pelt, R., & Bruno , L. Lest Restrictive Environment of Students with Intellectual Disability and Transition: A Literature Review. Poster presented at the American Association on Intellectual and Developmental Disabilities, St. Louis, MO.

Bruno, L.P., Scott, L.A., Gnilka, P., Vitullo, V., Kozachuk, L., & Brendli, K. (2018, March). Profiling Special Educators: An Initial Predication of Attrition and Retention. Paper presented at the Virginia Association of Colleges for Teacher Education, Williamsburg, VA.

Bruno, L.P. (2017, November). Infusing AT into a Teacher Preparation Program- Promoting Access for Individuals with Disabilities. Poster presented at the annual meeting of the Teacher Education Division, Savannah, GA.

Bruno, L.P., Scott, L., & Gokita, T. (2017, November). Developing UDL & Transition: Linking Academic and Transition Goals. Paper presented at the annual meeting of the Teacher Education Division, Savannah, GA.

Bruno, L.P., Scott. L., & Willis, C.B. (2017, November). A Nationwide Investigation of UDL & UDT Framework in Teacher Preparation Programs. Paper presented at the annual meeting of the Teacher Education Division, Savannah, GA.

Bruno, L.P. (2017, November). A Systematic Literature Review: Investigating the Effects of AT on Transition Skills. Poster presented at the Coleman Institute, Boulder, CO.

Scott, L., Thoma, C.A. & **Bruno, L.P.** (2017, October). Developing Universal Design for Learning and Transition Lesson Plans: Linking Academic and Transition Goals. Poster presented at the annual meeting for the Division on Career and Transition, Milwaukee, WI.

Bruno, L.P. (2017, October). Assistive Technology and Transition Outcomes: A Systematic Literature Review. Poster presented at the annual meeting for the Division on Career and Transition, Milwaukee, WI.

Puglia, L. (2017, June). Evaluating the Effects of Assistive Technology on Transition. Poster presented at the annual meeting for the American Association of Intellectual and Developmental Disabilities, Hartford, CT.

Wojcik, A., D'Aguilar, A., Puglia, L., Cain, I. & Thoma, C. (2017, June). Universal Design and Access to Transportation. Poster presented at the annual meeting for the American Association of Intellectual and Developmental Disabilities, Hartford, CT.

Temple, PEL, **Puglia, L**, Scott, LA, & Thoma, CA. (2017). Are teachers being taught to implement a UDL framework? A review of current personnel preparation practices Poster presented at the Council for Exceptional Children Special Education Convention & Expo in Boston, Massachusetts.

Puglia, L., Willis, C., & Scott, L. (2017, March). Implementing a UDL Framework: A Study of Current Personnel Preparation Practices. Paper presented at the Virginia Association of Colleges for Teacher Education, Williamsburg, VA.

Puglia, L., Moates, M. (2016). Infusing assistive technology into a teacher preparation program: promoting optimal outcomes of individuals with disabilities. Paper presented at the Annual 2016 DCDT Conference Myrtle Beach, SC.

Thoma, C. A., Wojcik, A., Cain, I., & **Puglia, L**. (2016). Students with intellectual and developmental disabilities in extracurricular activities. Paper presented at the Annual 2016 DCDT Conference*,* Myrtle Beach, SC.

Puglia, L. (2016). Increasing usability of assistive technology. Poster presented at the Annual AAIDD Conference. Atlanta, GA.

Thoma, C. A., Cain, I., & **Puglia, L**. (2016). Participation of students with intellectual and developmental disabilities in extracurricular activities. Poster presented at the Annual AAIDD Conference. Atlanta, GA.

Agran, M., Cain, I., Thoma, C., & **Puglia, L**. (2015). Ensuring a well-rounded education: promoting student participation in extracurricular activities. Paper presented at the Annual TASH Conference. Portland, OR.

NON-REFEREED PROFESSIONAL PRESENTATIONS

Puglia, L. (2016). Infusing assistive technology into a teacher preparation program. *VCU Doctoral Student Seminar,* Richmond, VA.

Puglia, L. (2015). Assistive Technology Usability, *Virginia Commonwealth University Graduate Student Colloquium.* Richmond, VA.

RESEARCH ACTIVITY

Meta-Analysis Study, September 2017 – December 2017. "The Relation Between Self-Efficacy and Burnout in Special Educators: A Meta-Analysis"

Qualitative Study, January 2017 – May 2017. "Teachers Perceptions on the use of Assistive Technology"

Single Subject Proposal, September 2016 – December 2016. "Using Assistive Technology Training to Increase Teacher's Response to Assistive Technology Users Requests"

Group Design Study, January 2016 - May 2016, "The Effects of Guided Notes on Post-Secondary Student Achievement"

GRANT ACTIVITY

Bruno, L.P. (December 2017 - Funded). Investigating Secondary Special Educator Transition Competencies and Attrition. Graduate Research Scholarships, Division on Career Development and Transition. **Funded $1,000.**

Scott, L.A., Dozier, T. (2017 – not funded). Project Certifying Online Virginia Educators (Project COVE). Personnel Preparation in Special Education, U.S. Department of Education. Proposed Budget: $1,250,000. **Served as a co-author.**

Xu, Y.Y. (March 2017). Project 3IP: Interdisciplinary and Intensive Intervention Preparation for Professionals Serving Young Children with Significant Disabilities. Virginia Commonwealth University. Funded September 2017. PR Award #: H325K170076. Award Amounted: $98,754.00. 2017-2022. **Assisted with grant development.**

TEACHING EXPERIENCE

2017	**Instructor.** *SEDP 330 – Survey of Special Education* (Undergraduate). Department of Special Education and Disability Policy.
2017	**Guest Lecturer.** Association of University Centers on Disability and Policy Experience. *Seminar on Disability Policy.* Department of Counseling and Special Education, Virginia Commonwealth University, Richmond, VA.
2017	**Teaching Assistant.** *Seminar on Disability Policy.* Department of Counseling and Special Education, Virginia Commonwealth University, Richmond, VA.
2016	**Teaching Assistant,** *Introduction into Special Education*. Department of Counseling and Special Education, Virginia Commonwealth University, Richmond, VA.
2016	**Teaching Internship**, *Trends in Special Education*. Department of Special Education and Disability Policy, Virginia Commonwealth University, Richmond, VA.
2016	**Guest Lecturer**. Teaching students with severe and multiple disabilities. *Introduction into Special Education,* Virginia Commonwealth University, Richmond, VA.
2015	**Teaching Assistant,** *Survey of Special Education*. Department of Special Education and Disability Policy, Virginia Commonwealth University, Richmond, VA.
2012-2015	**Teacher of Students with Severe and Multiple Disabilities**, Mountain View High School, Stafford, VA

SERVICE

June – August 2017 **Policy/Service Internship,** Kim Musheno, Association of University Centers on Disability

DEPARTMENT

2016 – Current Mentoring Committee for doctoral candidates in the Special Education and Disability Policy Track.

SCHOOL

2017 – Current Charles P. Ruch Award for Excellence in Teaching Selection Committee Member

2017 – Current Ph.D Policy Board AALE Student Representative

2017 – Current Graduate Assistantship Sub-Committee, Student Representative

UNIVERSITY

2017 – Current Special Education Mentor Committee, Coordinators

2017 – Current Association for Aspiring Leaders in Education, President

2016 – 2017 Association for Aspiring Leaders in Education, Social Chair

2015 – Current LaunchPad@VCU, Member

2015 – 2016 Association for Aspiring Leaders in Education, Member

PROFESSIONAL

2017 VA Teacher Education Division Board Member

2017 DCDT Social Media Co-Chair, Early Career Scholars and Graduate Student Subcommittee.

AWARDS AND ACADEMIC HONORS

2015- Research to Policy Advocacy (RTPA) Fellowship
Office of Special Education Programs
U.S. Department of Education

2013 First Class New Teacher of the Year
Stafford County Public Schools, Stafford, VA

EDITORIAL ACTIVITIES

Manuscript Review (2016). *Journal of Vocational Rehabilitation.*

Manuscript Review (2016). *Career Development and Transition for Exceptional Individuals*.

MEMBERSHIP IN PROFESSIONAL ASSOCIATONS

2017- Teacher Education Division (TED)

2017- Division on Autism and Developmental Disabilities (DADD)

2016- American Association on Intellectual and Developmental Disabilities (AAIDD)

2015- Council for Exceptional Children (CEC)
Division on Career Development and Transition (DCDT)

2015- TASH

2015- American Education Research Association (AERA)

COMMUNITY INVOLVEMENT

2017 – Current ARC of Greater Richmond New Generations Advisory Council, Co-Chair

2017 – Current Kids Alive Volunteer

2016 – Current Special Olympics Volunteer

2016 – Current Ph.D Student Mentor

2014 – Current Social Services Holiday Contributor